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THE HISTORY OF ANCIENT ASTRONOMY PROBLEMS AND METHODS

O. NEUGEBAUER

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Ce qui est admirable, ce n'est pas que le champ des étoiles soit si vaste, c'est que l'homme l'ait mesuré.—ANATOLE FRANCE, *Le Jardin d'Épicure*.

I. INTRODUCTION

1. In the following pages an attempt is made to offer a survey of the present state of the history of ancient astronomy by pointing out relationships with various other problems in the history of ancient civilization and particularly by enumerating problems for further research which merit our interest not only because they constitute gaps in our knowledge of ancient astronomy but because they must be clarified in order to lay a solid foundation for the understanding of later periods.

I wish to emphasize from the very beginning that the attitude taken here is of a very personal character. I do not believe that there is any single approach to the history of science which could not be replaced by very different methods of attack; only trivialities permit but one interpretation. I must confess still more: I cannot even pretend to be complete in the selection of topics essential for our understanding of ancient astronomy,¹ nor do I wish to conceal the fact that many of the steps which I myself have taken were dictated by mere accident. To mention only one example: without having been brought into contact with a recently purchased collection of Demotic papyri in Copenhagen, I would never have undertaken the investigation of certain periods of Hellenistic and Egyptian astronomy which now seem to me to constitute a very essential link between ancient and medieval astronomy. In other words, though I have always tried to subordinate any particular research problem to a wider program of systematic analysis, the impossibility of elaborate long-range plan-

¹ Also the bibliography, given at the end, is very incomplete and is only intended to inform the reader where he can find further details of the specific viewpoint discussed here and to list the original sources.

ning has again and again been impressed upon me. The situation is comparable to entering a vast mountainous region on a single trail; one must simply follow the winding path, trying to give account of its general direction, but one can never predict with certainty what new vistas will be exposed at the next turn.

2. The enormous complexity of the study of ancient astronomy becomes evident if we try to make the first, and apparently simplest, step of classification: to distinguish between, say, Mesopotamian, Egyptian, and Greek astronomy, not to mention their direct successors, such as Hindu, Arabic, and medieval astronomy. Neither geographically nor chronologically nor according to language can clear distinctions be made. Entirely different conditions underlie the astronomy in Egypt of the Middle and New kingdoms than in the periods after the Persian conquest. Greek astronomy of Euclid's time has very little in common with Hipparchus' astronomy only a hundred and fifty years later. It is evident that it is of very little value to speak about a "Babylonian" astronomy regardless of period, origin, and scope. And, worst of all, the concept "astronomy" itself undergoes changes in meaning when we speak about different periods. The fanciful combination of a group of brilliant stars to form the picture of a "bull's leg" and the computation of the irregularities in the moon's movement in order to predict accurately the magnitude of an eclipse are usually covered by the same name! For methodological reasons it is obvious that a drastic restriction in terminology must be made. We shall here call "astronomy" only those parts of human interest in celestial phenomena which are amenable to mathematical

treatment. Cosmogony, mythology, and applications to astrology must be distinguished as clearly separated problems—not in order to be disregarded but to make possible the study of the mutual influence of essentially different streams of development. On the other hand, it is necessary to co-ordinate intimately the study of ancient mathematics and astronomy because the progress of astronomy depends entirely on the mathematical tools available. This is in conformity with the concept of the ancients themselves: one need only refer to the original title of Ptolemy's "*Almagest*," namely, "Mathematical Composition."

3. The study of ancient astronomy will always have its center of gravity in the investigation of the Hellenistic-Roman period, represented by the names of Hipparchus and Ptolemy. From this center three main lines of research naturally emerge: the investigation of the previous achievements of the Near East; the investigation of pre-Arabic Hindu astronomy; and the study of the astronomy of late antiquity in its relation to Arabic and medieval astronomy. This last-mentioned extension of our program beyond antiquity proper is not only the natural continuation of the original problem but constitutes an integral part of the general approach outlined here. Astronomy is the only branch of the ancient sciences which survived almost intact after the collapse of the Roman Empire. Of course, the level of astronomical studies dropped within the boundaries of the remnants of the Roman Empire, but the tradition of astronomical theory and practice was never completely lost. On the contrary, the rather clumsy methods of Greek trigonometry were improved by Hindu and Arabic astronomers, new observations were constantly compared with Ptolemy's results, etc. This must be paralleled with

the total loss of understanding of the higher branches of Greek mathematics before one realizes that astronomy is the most direct link connecting the modern sciences with the ancient. In fact, the work of Copernicus, Brahe, and Kepler can be understood only by constant reference to ancient methods and concepts, whereas, for example, the meaning of the Greek theory of irrational magnitudes or Archimedes' integrations were understood only after being independently rediscovered in modern times.

There are, of course, very good reasons for the fact that ancient astronomy extended with an unbroken tradition deep into modern times. The structure of our planetary system is such that it is simple enough to permit the achievement of relatively far-reaching results with relatively simple mathematical methods, but complicated enough to invite constant improvement of the theory. It was thus possible to continue successfully the "ancient" methods in astronomy at a time when Greek mathematics had long reached a dead end in the enormous complication of geometric representation of essentially algebraic problems. The creation of the modern methods of mathematics, on the other hand, is again most closely related to astronomy, which urgently required the development of more powerful new tools in order to exploit the vast possibilities which were opened by Newton's explanation of the movement of the celestial bodies by means of general principles of physics. The confidence of the great scientists of the modern era in the sufficiency of mathematics for the explanation of nature was largely based on the overwhelming successes of celestial mechanics. Essentially the same held for scholars in classical times. In antiquity, mathematical tools were not available to explain any

physical phenomena of higher complexity than the planetary movement. Astronomy thus became the only field of ancient science where indisputable certainty could be reached. This feeling of the superiority of mathematical astronomy is best expressed in the following sentences from the introduction to the *Almagest*: "While the two types of theory could better be called conjecture than certain knowledge—theology because of the total invisibility and remoteness of its object, physics because of the instability and uncertainty of matter— . . . mathematics alone . . . will offer reliable and certain knowledge because the proof follows the indisputable ways of arithmetic and geometry."²

II. EGYPT

4. A few words must be said about Egyptian mathematics before discussing the astronomical material. Our main source for Egyptian mathematics consists of two papyri³—certainly not too great an amount in view of the length of the period in question! Still, it seems to be a fair assumption that we are well enough informed about Egyptian mathematics. Not only are both papyri of very much the same type but all additional fragments which we possess match the same picture—a picture which is paralleled by economic documents in which occur precisely those problems and methods which we find in the mathematical papyri. The Egyptian mathematical texts, furthermore, find their direct continuation

in Greek papyri,⁴ which again show the same pattern. It is therefore safe to say that Egyptian mathematics never rose above a very primitive level. So far as astronomy is concerned, numerical methods are of primary importance, and, fortunately enough, this is the very part of Egyptian mathematics about which we are best informed. Egyptian arithmetic can be characterized as being predominantly of an "additive" character, that is, its main tendency is to reduce all operations to repeated additions. And, because the process of division is very poorly adaptable to such procedures, we can say that Egyptian mathematics does not provide the most essential tools for astronomical computation. It is therefore not surprising that none of our Egyptian astronomical documents requires anything more than simple operations with integers. Where the complexity of the phenomena exceeded the capacity of Egyptian mathematics, the strongest simplifications were adopted, consequently leading to little more than qualitative results.

5. The astronomical documents of purely Egyptian origin are the following: Astronomical representations and inscriptions on ceilings of the New Kingdom,⁵ supplemented by the so-called "diagonal calendars" on coffin lids of the Middle Kingdom⁶ and by the Demotic-Hieratic papyrus "Carlsberg 1."⁷ Secondly, the Demotic papyrus "Carlsberg 9," which shows the method of determining new moons.⁸ Though written in Roman

² *Almagest* I, 1 (ed. Heiberg I, 6, 11 ff.).

³ Math. Pap. Rhind [Peet *RMP*; Chace *RMP*] and Moscow mathematical papyrus [Struve *MPM*]. For a discussion of Egyptian arithmetic see Neugebauer [1], for Egyptian geometry Neugebauer [2], and, in general, Neugebauer *Vorl.* The most recent attempt at a synthesis of Egyptian science, by Flinders Petrie (*Wisdom of the Egyptians* [London, 1940]), must unfortunately be considered as dilettantish not only because of its disregard of essential source material but also because of its lack of understanding for the mathematical and astronomical problems as such.

⁴ The continuation of this tradition is illustrated by the following texts: Demotic: Revillout [1]; Coptic: Crum *CO*, No. 480, and Sethe *ZZ*, p. 71; Greek: Robins [1] or Baillet [1]. For Greek computational methods in general, see Vogel [1].

⁵ Examples: The Nut-pictures in the cenotaph of Seti I (Frankfort *CSA*) and Ramses IV (Brugsch *Thes.* 1) and analogous representations in the tombs of Ramses VI, VII, and IX.

⁶ Cf. Pogo [1] to [4].

⁷ Lange-Neugebauer [1].

⁸ Neugebauer-Volten [1].

times (after A.D. 144), this text undoubtedly refers to much older periods and is uninfluenced by Hellenistic methods. A third group of documents, again written in Demotic, concerns the positions of the planets.⁹ In this case, however, it seems to be very doubtful whether these tables are of Egyptian origin rather than products of the Hellenistic culture; we therefore postpone a discussion to the section on Hellenistic astronomy.¹⁰ The last group of texts is again inscribed on ceilings and has been frequently discussed because of their representation of the zodiac.¹¹ There can be no doubt that these latter texts were deeply influenced by non-Egyptian concepts characteristic for the Hellenistic period. The same holds, of course, for the few Coptic astronomical documents we possess.¹² It is, finally, worth mentioning that not a single report of observations is preserved, in strong contrast to the abundance of observational records from Mesopotamia. It is hard to say whether this reflects a significant historical fact or merely

that we are at the mercy of the accidents of excavation.

Speaking of negative evidence, three instances must be mentioned which play a more or less prominent role in literature on the subject and have contributed much to a rather distorted picture of Egyptian astronomy. The first point consists in the idea that the earliest Egyptian calendar, based on the heliacal rising of Sothis, reveals the existence of astronomical activity in the fourth millennium B.C. It can be shown, however, that this theory is based on tacit assumptions which are very implausible in themselves and that the whole Egyptian calendar does not presuppose any systematic astronomy whatsoever.¹³ The second remark concerns the hypothesis of early Babylonian influence on Egyptian astronomical concepts.¹⁴ This theory is based on a comparative method which assumes direct influence behind every parallelism or vague mythological analogy. Every concrete detail of Babylonian and Egyptian astronomy which I know contradicts this hypothesis. Nothing in the texts of the Middle and New Kingdom equals in level, general type, or detail the contemporaneous Mesopotamian texts. The main source of trouble is, as usual, the retrojection into earlier periods of a situation which undoubtedly prevailed during the latest phase of Egyptian history. This brings us to the third point to be mentioned here: the assumption of an original Egyptian astrology. First of all, there is no proof in general for the widely accepted assertion that astrology preceded astronomy. But especially in Egypt is there no trace of astrological ideas in the enormous mythological literature which we possess for all periods.¹⁵

⁹ Neugebauer [3].

¹⁰ Cf. below, p. 24.

¹¹ I know of the following representations of zodiacs: No. 1 (Ptolemy III and V, i.e., 247/181 B.C.): northwest of Esna, North temple of Khnum (Porter-Moss *TB VI*, p. 118); Nos. 2 and 3 (Ptolemaic or Roman): El-Salâmûnî, Rock tombs (Porter-Moss *TB V*, p. 18); mentioned by L'Hôte, *LE*, pp. 86-87. No. 4 (Ptolemaic-Roman; Tiberius): Akhmîm, Two destroyed temples (Porter-Moss *TB V*, p. 20); mentioned by Pococke *DE*, I, pp. 77-78. No. 5 (Tiberius): Dendera, Temple of Hathor, Outer hypostyle (Porter-Moss *TB VI*, p. 49). No. 6 (Augustus-Trajan): Dendera, Temple of Hathor, East Osiris-chapel central room, ceiling, west half (Porter-Moss *TB VI*, p. 99). Nos. 7 and 8 (1st cent. A.D.): Athribis, Tomb (Porter-Moss *TB V*, p. 32). No. 9 (Titus and Commodus): Esna, Temple of Khnum (Porter-Moss *TB VI*, p. 116). No. 10 (Roman): Dealer in Cairo, publ. Daressy [1], pp. 126-27, and Boll, *Sphaera*, Pl. VI. Five other representations of the zodiacal signs are known from coffins, all from Ptolemaic or Roman times. On the other hand, the original Egyptian constellations are still found on coffins of the Saitic or early Ptolemaic periods.

¹² The only nonastrological Coptic documents known to me are the tables of shadow lengths published by U. Bouriant and Ventre-Bey [1].—P. Bouriant [1] did not recognize that the text published by him was a standard list of the planetary "houses" with no specific reference to Arabic astronomy.

¹³ Neugebauer [4], Winlock [1], Neugebauer [5].

¹⁴ Sponsored especially by the "Pan-Babylonian" school.

¹⁵ It is interesting to observe how deeply imbedded is the assumption that astrology must precede as-

The earliest horoscope from Egyptian soil, written in Demotic, refers to A.D. 13;¹⁶ the earliest Greek horoscope from Egypt concerns the year 4 B.C.¹⁷ We shall presently see that the assumption of a very late introduction of astrological ideas into Egypt corresponds to various other facts.

6. It is much easier to show that certain familiar ideas about the origin of astronomy are historically untenable than to give an adequate survey of our real knowledge of Egyptian astronomy. A. Pogo is to be credited with the recognition of the astronomical importance of inscriptions on the lids of a group of coffins from the end of the Middle Kingdom,¹⁸ apparently representing the setting and rising of constellations, though in an extremely schematic fashion. The constellations are known as the "decans" because of their correspondence to intervals of ten days. He furthermore saw the relationship between these simple pictures and the elaborate representations on the ceilings of the tombs belonging to kings of the New Kingdom.¹⁹

It can be safely assumed that the coffin lids are very abbreviated forms of contemporaneous representations on the ceilings of tombs and mortuary temples of the rulers of the Middle Kingdom. The logical place for these representations of the sky

on ceilings explains their destruction easily enough. The earliest preserved ceiling, discovered in the unfinished tomb of Senmut, the vezir of Queen Hatshepsut,²⁰ is about three centuries later than the coffin lids. Then come the well-preserved ceiling in the subterranean cenotaph of Seti I²¹ and its close parallels in the tomb of Ramses IV²² and later rulers.²³ The difficulties we have to face in an attempt to explain these texts can best be illustrated by a brief discussion of the above-mentioned papyrus "Carlsberg A." This papyrus was written more than a thousand years after the Seti text but was clearly intended to be a commentary to these inscriptions. In the papyrus we find the text from the cenotaph split into short sections, written in Hieratic, which are followed by a word-for-word translation into Demotic supplemented by comments in Demotic. The original text is frequently written in a cryptic form, to which the Demotic version gives the key. We now know, for instance, that various hieroglyphs were replaced by related forms in order to conceal the real contents from the uninitiated reader. How successfully this method worked is shown by the fact that one such sign, which is essential for the understanding of a long list of dates of risings and settings of the decans, was used at its face value for midnight instead of evening.²⁴ It is needless to emphasize what the recognition of such substitutions means for the correct understanding of astronomical texts. A complete revision of all previously published material is needed in the light of this new

tronomy. Brugsch called his edition of cosmogonic and mythological texts "astronomische und astrologische Inschriften" in spite of the fact that these texts do not betray the slightest hint of astrology.

¹⁶ Neugebauer [6].

¹⁷ *Pap. Oxyrh.* 804. From this time until A.D. 500 more than sixty individual horoscopes, fairly equally distributed in time, are known to me.

¹⁸ Cf. n. 6.

¹⁹ Some of Pogo's assumptions must, however, be abandoned, because they are based on the distinction of different types of such coffin inscriptions. A close examination of these texts (and also unpublished material) shows that all preserved samples belong to the same type. A systematic edition of all these texts is urgently needed if we are to obtain a solid basis for the study of Egyptian constellations.

²⁰ Winlock [2], pp. 34 ff., reprinted in Winlock *EDEB*, pp. 138 ff., and Pogo [5]. The final publication has not yet appeared.

²¹ Frankfort *CSA*.

²² Brugsch *Thes.* I opposite pp. 174-75, but incomplete (cf. Lange-Neugebauer [1], p. 90).

²³ Cf. n. 5.

²⁴ Sethe, *Z.A.A.*, p. 293, n. 1, and Lange-Neugebauer [1], p. 63.

insight into the Egyptian scheme of describing the rising and setting of stars the year round. One point, however, must be kept in mind in every investigation of Egyptian constellations. One must not ascribe to these documents a degree of precision which they were never intended to possess. I doubt, for example, very much whether one has a right to assume that the decans are constellations covering exactly ten degrees of a great circle on the celestial sphere. I think it is much more plausible that they are constellations spread over a more or less vaguely determined belt around the sky, just as we speak about the Milky Way. It is therefore methodically wrong to use these star lists and the accompanying schematic date lists for accurate computations, as has frequently been attempted.

The second Demotic astronomical document, papyrus Carlsberg 9, is much easier to understand and gives us full access to the Egyptian method of predicting the lunar phases with sufficient accuracy. The whole text is based on the fact that 25 Egyptian years cover the same time interval as 309 lunations. The 25 years equal 9125 days, which are periodically arranged into groups of lunar months of 29 and 30 days. The periodic repetition of this simple scheme corresponds, on the average, very well with the facts; more was apparently not required, and, we may add, more was not obtainable with the available simple mathematical means which are described at the beginning of this section. The purpose of the text was to locate the wandering lunar festivals within the schematic civil calendar, as is shown by a list of the "great" and "small" years of the cycle, which contain 13 or 12 lunar festivals, respectively.²⁵ Accordingly, calen-

daric problems are seen to be the activating forces here as well as in the decanal lists of the Middle and New Kingdom. The two Carlsberg papyri thus give us a very consistent picture of Egyptian stellar and lunar astronomy and its calendaric relations and are in best agreement with the level known from the mathematical papyri.

Before leaving the description of Egyptian science, brief mention should be made of the much-discussed question of the "scientific" character of Egyptian mathematics and astronomy. First of all, the word "scientific" must be clearly defined. The usual identification of this question with that of the practical or theoretical purpose of our documents is obviously unsatisfactory. One cannot call medicine or physics unscientific even if they serve eminently practical purposes. It is neither possible nor relevant to discover the moral motives of a scientist—they might be altruistic or selfish, directed by the desire for systematization or by interest in competitive success. It is therefore clear that the concept "scientific" must be described as a question of methods, not of motives. In the case of mathematics and astronomy, the situation is especially simple. The criterion for scientific mathematics must be the existence of the concept of proof; in astronomy, the elimination of all arguments which are not exclusively based on observations or on mathematical consequences of an initial hypothesis as to the fundamental character of the movements involved. Egyptian mathematics nowhere reaches the level of argument which is worthy of the name of proof, and even the much more highly developed Babylonian mathematics hardly ever displays a general technique for proving its procedures.²⁶

²⁵ The "great" and "small" years (already mentioned in an inscription of the Middle Kingdom) have given rise to much discussion (cf., e.g., Ginzel *Chron.*, I, pp. 176–77) which can now be completely ignored.

²⁶ See the discussion in Neugebauer *Vorl.*, pp. 203 ff.

Egyptian astronomy was satisfied with a very rough qualitative description of the phenomena—here, too, we miss any trace of scientific method. The first scientific attack of mathematical problems was made in the fifth century B.C. in Greece. We shall see that scientific astronomy can be found shortly thereafter in Babylonian texts of the Seleucid period. In other words, the enormous interest of the study of pre-Hellenistic Oriental sciences lies in the fact that we are able to follow the development far back into *pre-scientific* periods which saw the slow preparation of material and problems which deeply influenced the shape of the real scientific methods which emerged to full power for the first time in the Hellenistic culture. It is a serious mistake to try to invest Egyptian mathematical or astronomical documents with the false glory of scientific achievements or to assume a still unknown science, secret or lost, not found in the extant texts.

III. MESOPOTAMIA

7. Turning to Babylonian astronomy, one's first impression is that of an enormous contrast to Egyptian astronomy. This contrast not only holds in regard to the large amount of material available from Mesopotamia but also with respect to the level finally reached. Texts from the last two or three centuries B.C. permit the computation of the lunar movement according to methods which certainly rank among the finest achievements of ancient science—comparable only to the works of Hipparchus and Ptolemy.

It is one of the most fascinating problems in the history of ancient astronomy to follow the different phases of this development which profoundly influenced all further events. Before giving a short sketch of this progress as we now restore it according to our present knowledge, we

must underline the incompleteness of the present state of research, which is due to the fact that we do not yet have reliable and complete editions of the text material. The observation reports addressed to the Assyrian kings were collected by R. C. Thompson²⁷ and in the editions of Assyrian letters published and translated by Harper,²⁸ Waterman,²⁹ and Pfeiffer;³⁰ much related material is quoted in the publications of Kugler,³¹ Weidner,³² and others. But Thompson's edition gives the original texts only in printed type, subject to all the misunderstandings of this early period of Assyriology, and very little has been done to repair these original errors. Nothing short of a systematic "corpus" of all the relevant texts can provide us with the requisite security for systematic interpretation. The great collection of astrological texts, undertaken by Virolleaud³³ but never finished, confronts the reader with still greater difficulties, because Virolleaud composed complete versions from various fragments and duplicates without indicating the sources from which the different parts came. And, finally, the tablets dealing with the movement of the moon and the planets were discussed and explained in masterly fashion by Kugler,³⁴ but here, too, a systematic edition of the whole material is necessary.³⁵ Years of systematic work will be needed before the foundations for a reliable history of the development of Babylonian astronomy are laid.

8. Kugler uncovered step by step the ingenious methods by which the ephemer-

²⁷ Thompson *Rep.* (1900).

²⁹ Waterman *RC.*

²⁸ Harper *Letters.*

³⁰ Pfeiffer *SLA.*

³¹ Kugler *SSB* and Kugler *MP.*

³² Weidner *Hdb.*, Weidner [1], [2], and numerous articles in the pre-war volumes of *Babyloniaca.*

³³ Virolleaud *ACh.*

³⁴ Kugler *BMR* and *SSB.*

³⁵ Such an edition by the present author is in preparation; it is quoted in the following as *ACT.*

ids of the moon and the planets which we find inscribed on tablets ranging from 205 B.C. to 30 B.C. were computed.³⁶ It can justly be said that his discoveries rank among the most important contributions toward an understanding of ancient civilization. It is very much to be regretted that historians of science often quote Kugler but rarely read him;³⁷ by doing this, they have disregarded the newly gained insight into the origin of the basic methods in exact science. This is not the place to describe in detail the Babylonian "celestial mechanics," as it might properly be called; that will be one of the tasks of a history of ancient astronomy which remains to be written. A few words, however, must be said in order to render intelligible the relationship between Babylonian and Greek methods. The problem faced by ancient astronomers consisted in predicting the positions of the moon and the planets for an extended period of time and with an accuracy higher than that obtainable by isolated individual observations, which were affected by the gross errors of the instruments used. All these phenomena are of a periodic character, to be sure, but are subject to very complicated fluctuations. All that we know now seems to point to the following reconstruction of the history of late Babylonian as-

³⁶ The first tentative (but very successful) steps were made by Epping *AB* (1889). Then follow Kugler's monumental works *BMR* (1900) and *SSB* (published between 1907 and 1924), supplemented by Schaumberger's explanation of the determination of first and last visibility of the moon (1935) and continued by the present author with respect to the theory of latitude and eclipses (Neugebauer [8], [9], Pannekoek [2] and van der Waerden [1]). The theory of planets is treated in Kugler *SSB*, to be supplemented by Pannekoek [1], Schnabel [2], and van der Waerden [2]. All previously published texts and much unpublished material will be contained in Neugebauer *ACT*. The whole material amounts to about a hundred ephemerids for the moon and the planets, covering the above-mentioned two centuries.

³⁷ Abel Rey, *La Science orientale avant les grecs* (Paris, 1930), and E. Zinner, *Geschichte der Sternkunde* (Berlin, 1931), are brilliant examples showing complete ignorance of Kugler's results.

tronomy. A systematic observational activity during the Late Assyrian and Persian periods (roughly, from 700 B.C. onward) led to two different results. First, the collected observations provided the astronomers with fairly accurate average values for the main periods of the phenomena in question; once such averages were obtained, improvements could be furnished by scattered observational records from preceding centuries. Secondly, from individual observations, for example, of the moment of full moon³⁸ or of heliacal settings, etc., short-range predictions could be made by methods which we would call linear extrapolation. Such methods are frequently sufficient to *exclude* certain phenomena (such as eclipses) in the near future and, under favorable conditions, even to predict the date of the next phenomenon in question. After such methods had been developed to a certain height, apparently one ingenious man conceived a new idea which rapidly led to a systematic method of long-range prediction. This idea is familiar to every modern scientist; it consists in considering a complicated periodic phenomenon as the result of a number of periodic effects, each of a character which is simpler than the actual phenomenon.³⁹ The whole method probably originated in the theory of the moon, where we find it at its highest perfection. The moments of new moons could easily be found if the sun and moon would each move with constant velocity. Let us assume this to be the case and use average values for this ideal movement; this gives us average positions for the new moons. The actual movement deviates from this average but oscillates around it periodically. These deviations were now treated

³⁸ Frequently mentioned in the "reports" to the Assyrian court (e.g., Thompson *Rep.*).

³⁹ A classic example is the treatment of sounds as the result of the superposition of pure harmonic vibrations.

as new periodic phenomena and, for the sake of easier mathematical treatment, were considered as linearly increasing and decreasing. Additional deviations are caused by the inclination of the orbits. But here again a separate treatment, based on the same method, is possible. Thus, starting with average positions, the corrections required by the periodic deviations are applied and lead to a very close description of the actual facts. In other words, we have here, in the nucleus, the idea of "perturbations," which is so fundamental to all phases of the development of celestial mechanics, whence it spread into every branch of exact science.

We do not know when and by whom this idea was first employed. The consistency and uniformity of its application in the older of the two known "systems" of lunar texts point clearly to an invention by a single person. From the dates of the preserved texts, one might assume a date in the fourth or third century B.C.⁴⁰ This basic idea was applied not only to the theory of the moon (in two slightly modified forms) but also to the theory of the planets. In this latter theory the main point consists in refraining from an attempt to describe directly the very irregular movement, substituting instead the separate treatment of several individual phenomena, such as opposition, heliacal rising, etc.; each of these phenomena is treated with the methods familiar from the lunar theory as if it were the periodic movement of an independent celestial body. After dates and positions of each characteristic phenomenon are determined, the intermediate positions are found by interpola-

⁴⁰ The attempts to determine a more precise date (Schnabel *Ber.*, pp. 219 ff., and Schnabel [I], pp. 15 ff.) are based on unsatisfactory methods. The generally accepted statement that Naburimannu was the founder of the older system of the lunar theory relies on nothing more than the occurrence of this name in one of the latest tablets in a context which is not perfectly clear.

tion between these fixed points.⁴¹ It must be said, however, that the planetary theory was not developed to the same degree of refinement as the lunar theory; the reason might very well be that the lunar theory was of great practical importance for the question of the Babylonian calendar: whether a month would have 30 or 29 days. For the planets no similar reason for high accuracy seems to have existed, and it was apparently sufficient merely to compute the approximate dates of phenomena, which, in addition, are frequently very difficult to observe accurately.

We cannot emphasize too strongly that the essential point in the above-described methods lies not in the comparatively high accuracy of the results obtained but in their fundamentally new attitude toward the whole problem. Let us, as a typical example, consider the movement of the sun.⁴² Certain simple observations, most likely of the unequal length of the seasons, had led to the discovery that the sun does not move with constant velocity in its orbit. The naïve method of taking this fact into account would be to compute the position of the sun by assuming a regularly varying velocity. It turned out, however, that considerable mathematical difficulties were met in computing the syzygies of the moon according to such an assumption. Consequently, another velocity distribution was substituted, and it was found that the following "model" was satisfactory: the sun moves with two different velocities over two unequal arcs of the ecliptic, where velocities and arcs were determined in such a fashion that the initial empirical facts were correctly explained and at the same time the computation of the conjunctions became suffi-

⁴¹ This is shown by a tablet for Mercury, to be published in Neugebauer *ACT*. The interpolation is not simply linear but of a more complicated type known from analogous cases in the lunar theory.

⁴² For details see Neugebauer [10] and [9] § 2.

ciently simple. It is self-evident that the man who devised this method did not think that the sun moved for about half a year with constant velocity and then, having reached a certain point in the ecliptic suddenly started to move with another, much higher velocity for the rest of the year. His problem was clearly this: to make a very complicated problem accessible to mathematical treatment with the only condition that the final consequences of the computations correctly correspond to the actual observations—in our example, the inequality of the seasons. The Greeks⁴³ called this a method “to preserve the phenomena”; it is the method of introducing mathematically useful steps which in themselves need not be of any physical significance. For the first time in history, mathematics became the leading principle for the structure of physical theories.

9. It will be clear from this discussion that the level reached by Babylonian mathematics was decisive for the development of such methods. The determination of characteristic constants (e.g., period, amplitude, and phase in periodic motions) not only requires highly developed methods of computation but inevitably leads to the problem of solving systems of equations corresponding to the outside conditions imposed upon the problem by the observational data. In other words, without a good stock of mathematical tools, devices of the type which we find everywhere in the Babylonian lunar and planetary theory could not be designed. Egyptian mathematics would have rendered hopeless any attempt to solve problems of the type needed constantly in Babylonian astronomy. It is therefore essential for our topic to give a brief sketch of Babylonian mathematics.

⁴³ E.g., Proclus, *Hypotyposis astron. pos.* v. 10 (ed. Manitius, 140, 21).

I think it can be justly said that we have a fairly good knowledge of the character of mathematical problems and methods in the Old Babylonian period (ca. 1700 B.C.). Almost a hundred tablets from this period are published;⁴⁴ they contain collections of problems or problems with complete solutions—amounting to far beyond a thousand problems. We know practically nothing about the Sumerian mathematics of the previous periods and very little of the interval between the Old Babylonian period and Seleucid times. We have but few problem texts from the latter period, but they give us some idea of the type of mathematics familiar to the astronomers of this age. This material is sufficient to assure us that all the essential achievements of Old Babylonian times were still in the possession of the latest representatives of Mesopotamian science. In other words, Babylonian mathematical astronomy was built on foundations independently laid more than a millennium before.

If one wishes to characterize Babylonian mathematics by one term, one could call it “algebra.” Even where the foundation is apparently geometric, the essence is strongly algebraic, as can be seen from the fact that frequently operations occur which do not admit of a geometric interpretation, as addition of areas and lengths, or multiplication of areas. The predominant problem consists in the determination of unknown quantities subject to given conditions. Thus we find prepared precisely the tools which were later to become of the greatest importance for astronomy.

Of course, the term “algebra” does not completely cover Babylonian mathemat-

⁴⁴ These texts were published in Neugebauer *MKT* (1935–38) and in Neugebauer-Sachs *MCT* (1945). A large part of the *MKT* material was republished in Thureau-Dangin *TMB* (1939). For a general survey see Neugebauer *Vorl.*

ics. Not only were a certain number of geometrical relations well known but, more important for our problem, the basic properties of elementary sequences (e.g., arithmetic and geometric progressions) were developed.⁴⁵ The numerical calculations are carried out everywhere with the greatest facility and skill.

We possess a great number of texts from all periods which contain lists of reciprocals, square and cubic roots, multiplication tables, etc., but these tables rarely go beyond two sexagesimal places (i.e., beyond 3600). A reverse influence of astronomy on mathematics can be seen in the fact that tables needed for especially extensive numerical computations come from the Seleucid period; tables of reciprocals are preserved with seven places (corresponding to eleven decimal places) for the entry and up to seventeen places (corresponding to twenty-nine decimal places) for the result. It is clear that numerical computations of such dimensions are needed only in astronomical problems.

The superiority of Babylonian numerical methods has left traces still visible in modern times. The division of the circle into 360 degrees and the division of the hour into 60 minutes and 3600 seconds reflect the unbroken use of the sexagesimal system in their computations by medieval and ancient astronomers. But though the base 60 is the most conspicuous feature of the Babylonian number system, this was by no means essential for its success. The great number of divisors of 60 is certainly very useful in practice, but the real advantage of its use in the mathematical and astronomical texts lies in the place-value

notation,⁴⁶ which is consistently employed in all scientific computations. This gave the Babylonian number system the same advantage over all other ancient systems as our modern place-value notation holds over the Roman numerals. The importance of this invention can well be compared with that of the alphabet. Just as the alphabet eliminates the concept of writing as an art to be acquired only after long years of training, so a place-value notation eliminates mere computation as a complex art in itself. A comparison with Egypt or with the Middle Ages illustrates this very clearly. Operation with fractions, for example, constituted a problem in itself for medieval computers; in place-value notation, no such problem exists,⁴⁷ thus eliminating one of the most serious obstacles for the further development of mathematical technique.

The analogy between alphabet and place-value notation can be carried still further. Neither one was the sudden invention made by a single person but the final outcome of various historical processes. We are able to trace Mesopotamian number-writing far back into the earliest stages of civilization, thanks to the enormous amount of economic documents preserved from all periods. It can be shown how a notation analogous to the Egyptian or Roman system was gradually replaced by a notation which developed naturally in the monetary system and which tended toward a place-value notation. The value 60 of the base appears to be the outcome of the arrangement of the monetary

⁴⁵ Incidentally, we also have an example (Neugebauer-Sachs *MCT*, Problem-Text A) of purely number theoretical type from Old Babylonian times (so-called "Pythagorean numbers"); but it should be added that we do not find the slightest trace of number mysticism anywhere in these texts.

⁴⁶ Place-value notation consists in the use of a very limited number of symbols whose magnitude is determined by position. Thus 51 does not mean 5 plus 1 (as it would with Roman or Egyptian numerals), but 5 times 10 plus 1. Analogously in the sexagesimal system, five followed by one (we transcribe 5,1) means 5 times 60 plus 1 (i.e., 301).

⁴⁷ Example: to add or to multiply 1.5 and 1.2 requires exactly the same operations as the addition or multiplication of 15 and 12.

units.⁴⁸ Outside of mathematical texts, the place-value notation was always overlapped by various other notations, and toward the end of Mesopotamian civilization a modified system became predominant. It seems very possible, however, that the idea of place-value writing was never completely lost and found its way through astronomical tradition into early Hindu astronomy.⁴⁹ whence our present number system originated during the first half of the first millennium A.D.

10. • We now turn to the periods preceding the final stage of Babylonian astronomy which culminated in the mathematical theory of the moon and the planets described above. It is not possible to give an outline of this earlier development because most of the preliminary work remains to be done. A few special problems, however, which must eventually find their place in a more complete picture, can now be mentioned.

In our discussion of the methods used in the lunar and planetary theories, we had occasion to mention the extensive use of periodically increasing and decreasing sequences of numbers. A simple case of this method appears in earlier times in the problem of describing numerically the changing length of day and night during the year. The crudest form is the assumption of linear variation between two extremal values.⁵⁰ Two much more refined schemes are incorporated in the texts of the latest period, but it seems very likely that they are of earlier origin. Closely related are two other problems: the variability of the length of the shadow of the

"gnomon"⁵¹ and the measurement of the length of the day by water clocks.⁵² The latter problem has caused considerable trouble in the literature on the subject because the texts show the ratio 2:1 for the extremal values during the year. A ratio 2:1 between the longest and the shortest day, instead of the ratio 3:2, which is otherwise used,⁵³ would correspond to a geographical latitude absolutely impossible for Babylon. The discrepancy disappears, however, if one recalls the fact that the amount of water flowing from a cylindrical vessel is not proportional to the time elapsed but decreases with the sinking level.⁵⁴ It is worth mentioning in this connection that the outflow of water from a water clock is already discussed in Old Babylonian mathematical texts.⁵⁵ This whole group of texts, however, leads to nothing more than very approximate results. This is seen from the fact that the year is assumed, for the sake of simplicity, to be 360 days long and divided into 12 months of 30 days each.⁵⁶ This schematic treatment has its parallel in the schemes which we have met in Egyptian astronomy and which we shall find again in early Greek astronomy; we must once more emphasize that elements from such schemes cannot be used for modern calculations, since this would assume quantitative accuracy where only qualitative results had been intended.

The calendaric interest of these problems is obvious. The same is true of the

⁴⁸ Weidner [1], pp. 198 ff.

⁴⁹ Weissbach *BM*, pp. 50-51; Weidner [1], pp. 195-96.

⁵⁰ Schaumberger *Erg.*, p. 377.

⁵¹ Neugebauer [19].

⁵² Thureau-Dangin [2] and Neugebauer *MKT*, I, pp. 173 ff.

⁵³ This schematic year of 360 days, of course, does not indicate that one assumed 360 days as the correct length of the solar year. A lunar calendar makes correct predictions of a future date very difficult. The schematic calendar is in practice therefore very convenient for giving future dates which must, at any rate, be adjusted later.

⁴⁸ For details see Neugebauer [11] and Neugebauer *Vorl.*, chap. iii § 4. The theory set forth by Thureau-Dangin *SS* (English version Thureau-Dangin [1]) does not account for the place-value notation, which is the most essential feature of the whole system.

⁴⁹ Cf. Datta-Singh *HHM* I and Neugebauer [12], pp. 266 ff.

⁵⁰ E.g., Weissbach *BM*, pp. 50-51.

oldest preserved astronomical documents from Mesopotamia, the so-called "astrolabes."⁵⁷ These astrolabes are clay tablets inscribed with a figure of three concentric circles, divided into twelve sections by twelve radii. In each of the thirty-six fields thus obtained we find the name of a constellation and simple numbers whose significance is not yet clear. But it seems evident that the whole text constitutes some kind of schematic celestial map which represents three regions on the sky, each divided into twelve parts, and attributing characteristic numbers to each constellation. These numbers increase and decrease in arithmetic progression and are undoubtedly connected with the corresponding month of the schematic twelve-month calendar. It is clear that we have here some kind of simple astronomical calendar parallel (not in detail, but in purpose) to the "diagonal calendars" in Egypt. In both cases these calendars are of great interest to us as a source for determining the relative positions and the earliest names of various constellations. But here, too, the strongest simplifications are adopted in order to obtain symmetric arrangements, and much remains to be done before we can answer such questions as the origin of the "zodiac."

11. Few statements are more deeply rooted in the public mind or more often repeated than the assertion that the origin of astronomy is to be found in astrology. Not only is historical evidence lacking for this statement but all well-documented facts are in sharp contradiction to it. All the above-mentioned facts from Egypt and Babylonia (and, as we shall presently see, also from Greece) show that calendar problems directed the first steps of

astronomy. Determination of the season, measurement of time, lunar festivals—these are the problems which shaped astronomical development for many centuries; and we have seen that even the last phase of Mesopotamian astronomy, characterized by the mathematical ephemerids, was mainly devoted to problems of the lunar calendar. It is therefore one of the most difficult problems in the history of ancient astronomy to uncover the real roots of astrology and to establish their relation to astronomy. Very little has been done in this direction, mainly because of the prejudice in favor of accepting without question the priority of astrology.

Before going into this problem in greater detail, we must clarify our terminology. The modern reader usually thinks in terms of that concept of astrology which consists in the prediction of the fate of a person determined by the constellation of the planets, the sun, and the moon at the moment of his birth. It is well known, however, that this form of astrology is comparatively late and was preceded by another form of much more general character (frequently called "judicial" astrology in contrast to the "genethliological" or "horoscopic" astrology just described). In judicial astrology, celestial phenomena are used to predict the imminent future of the country or its government, particularly the king. From halos of the moon, the approach or invisibility of planets, eclipses, etc., conclusions are drawn as to the invasion of an enemy from the east or west, the condition of the coming harvest, floods and storms, etc.; but we never find anything like the "horoscope" based on the constellation at the moment of birth of an individual. In other words, Mesopotamian "astrology" can be much better compared with weather prediction from phenomena observed in the skies than with astrology in the modern sense of the

⁵⁷ This name is rather misleading and is merely due to the circular arrangement. Schott [1], p. 311, introduced the more appropriate name "twelve-times-three." Such texts are published in OT 33, Pls. 11 and 12. Cf. also Weidner *Hdb.*, pp. 62 ff. and Schott [1].

word. Historically, astrology in Mesopotamia is merely one form of predicting future events; as such, it belongs to the enormous field of omen literature which is so familiar to every student of Babylonian civilization.⁵⁸

Indeed, it can hardly be doubted that astrology emerged from the general practice of prognosticating through omens, which was based on the concept that irregularities in nature of any type (e.g., in the appearance of newborn animals or in the structure of the liver or other internal parts of a sheep) are indicative of other disturbances to come. Once the idea of fundamental parallelism between various phenomena in nature and human life is accepted, its use and development can be understood as consistent; established relations between observed irregularities and following events, constantly amplified by new experiences, thus lead to some sort of empirical science, which seems strange to us but was by no means illogical and bare of good sense to the minds of people who had no insight into the physical laws which determined the observed facts.

Though the preceding remarks certainly describe the general situation adequately, the historical details are very much in the dark. One of the main difficulties lies in the character of our sources. We have at our disposal large parts of collections of astrological omens arranged in great "series" comprising hundreds of tablets. But the preserved canonical series come mainly from comparatively late collections (of the Assyrian period) and were thus undoubtedly subject to countless modifications. We must, moreover, probably assume that the collection of astrological omens goes back to the Cassite period (before 1200 B.C.)—a period about which our

general information is pretty flimsy. From the Old Babylonian period only one isolated text is preserved⁵⁹ which contains omens familiar from the later astrology. Predictions derived from observations of Venus made during the reign of Ammisaduqa (ca. 1600 B.C.) are preserved only in copies written almost a thousand years later⁶⁰ and clearly subjected to several changes during this long time. We are thus again left in the dark as to the actual date of the composition of these documents except for the fact that it seems fairly safe to say that no astrological ideas appear before the end of the Old Babylonian period. Needless to say, there are no astrological documents of Sumerian origin.

The period of the ever increasing importance of astrology (always, of course, of the above-mentioned type of "judicial" astrology) is that beginning with the Late Assyrian empire. The "reports" mentioned previously, preserved in the archives of the Assyrian kings, are our witnesses. But here, again, a completely unsolved problem must be mentioned: we do not know how the "horoscopic" astrology of the Hellenistic period originated from the totally different omen type of astrology of the preceding millennium. It is, indeed, an entirely unexpected turn to make the constellation of the planets at a single moment responsible for the whole future of an individual, instead of observing the ever shifting phenomena on the sky and thus establishing short-term consequences for the country in general (even if represented in the person of the king). It seems to me by no means self-evident that this radical shift of the character of astrology actually originated in Babylonia. We shall see in the next section that the horoscopic practice flourished especially in Egypt. It might therefore very well be that the new tendency originated in Hellenistic times

⁵⁸ A comprehensive study of the development of the astrological omen literature by E. F. Weidner is in course of publication (Weidner [2]).

⁵⁹ Šileiko [1].

⁶⁰ Langdon VT.

outside Mesopotamia and was reintroduced there in its modified form. It might be significant that only seven horoscopes are preserved from Mesopotamia, all of which were written in the Seleucid period,⁶¹ a ridiculously small number as compared with the enormous amount of textual material dealing with the older "judicial" astrology. It must be admitted, however, that the oldest horoscopes known are of Babylonian origin. On the other hand, at no specific place can all the elements be found which are characteristic for astrology from Hellenistic times onward. Neither Babylonian astrology nor Egyptian cosmology furnishes the base for the fundamental assumption of horoscopic astrology, namely, that the position of the planets in the zodiac decides the future. And, finally, it must be emphasized that the problem of determining the date and place of origin of horoscopic astrology is intimately related to the problem of the date and origin of mathematical astronomy. Horoscopes could not be cast before the existence of methods to determine the position of the celestial bodies for a period of at least a few decades. Even complete lists of observations would not be satisfactory because the positions of the planets in the zodiac are required regardless of their visibility at the specific hour. This shows how closely interwoven are the history of astrology and the history of planetary theories.

IV. THE HELLENISTIC PERIOD

12. Before beginning the discussion of the Hellenistic period, we must briefly describe the preceding development in

⁶¹ Two are published by Kugler *SSB*, II, 554 ff., and refer to the years 258 and 142 B.C., respectively. One (probably 233 B.C.) is published in Thompson *AB* 251. Among four unpublished horoscopes, discovered by Dr. A. Sachs, two are very small fragments, one can be dated 235 B.C., and the last was cast for the year 263 B.C.; the last is the oldest horoscope in the world.

Greece. Our direct sources of information about astronomy and mathematics before Alexander are extremely meagre. The dominating influence of Euclid's *Elements* succeeded in destroying almost all references to pre-Euclidean writings, and essentially the same effect was produced by Ptolemy's works. Original documents are, of course, not preserved—one must not forget that even our oldest manuscripts of Greek mathematical and astronomical literature were written many centuries after the originals.⁶² It is therefore not surprising that our present-day knowledge of early Greek science is much more incomplete and subject to conjecture than the history of Mesopotamian or even Egyptian achievements where original documents are at our disposal. One point, however, can be established beyond any doubt: early Greek astronomy shows very strong parallelism with the early phases of Egyptian and Babylonian astronomy, with respect to scope as well as primitiveness. The astronomical writings of Autolycus⁶³ and Euclid⁶⁴ struggle in a very crude way with the problem of the rising and setting of stars, making very strong simplifications which were forced upon them by the lack of adequate methods in spherical geometry. The final goal is again to establish relations between the celestial phenomena and the seasons of the years; the problem is thus of essentially calendaric interest. In addition to these simple treatises, however, we do find one work of outstanding character: the planetary theory of Eudoxos, Plato's famous contemporary. He made an attempt to explain the peculiarities of a planetary movement known as retrogra-

⁶² The oldest preserved manuscript of Euclid's *Elements* was written about twelve hundred years after Euclid (cf., e.g., Heath *Euclid*, I, p. 47).

⁶³ Autolycus, ed. Hultsch (Leipzig, 1885).

⁶⁴ *Euclidis opera omnia*, Vol. VIII, ed. Menge (Leipzig, 1916).

dation by the assumption of the superposition of the rotation of two concentric spheres around inclined axes and in opposite directions. In this way he reached a satisfactory explanation of the general type of planetary movement and thereby inaugurated a new period in the history of astronomy which was marked by attempts to explain the movements of the planetary system by mechanical models. It contains the nucleus for all planetary theories of the following two thousand years, namely, the assumption that irregularities in the apparent orbits can be explained as the result of superposed circular movements. It is only since Galileo and Newton that we know that the circular orbits do not play an exceptional role and that the great successes of the Greek theory were merely due to the accidental distribution of masses in our planetary system. It is, nevertheless, of great historical interest to see how a plausible initial hypothesis can for many centuries determine the line of attack on a problem, simultaneously barring all other possibilities. Such possibilities were actually contained in the approach developed by the Babylonian astronomers in the idea of superposing linear or quadratic periodic functions. These arithmetical methods were, however, almost completely abandoned by the Greek astronomers (at least so far as we know) and survived only in the treatment of certain smaller problems.

One of these smaller problems is again related to calendaric questions but also to a basic problem of mathematical geography: the determination of the geographical latitude by means of the ratio of the longest to the shortest day. We have already mentioned the Babylonian methods of describing the change in the length of the days by means of simple sequences. These "linear" methods reappear in Greek literature and can be followed far

into the early Middle Ages⁶⁵ in spite of the invention of much more accurate methods.⁶⁶ The term "linear" does not refer so much to the fact that the sequences in question form arithmetic progressions of the first order but is intended to emphasize the contrast with the "trigonometric" method applied to the same problem and explained in the first book of the *Almagest*. Here the exact solution of the problem by the use of spherical trigonometry is given. In contrast thereto, the linear methods yield only approximate results, but with an accuracy which was certainly sufficient in practice, especially when one takes into account the inaccuracy of the ancient instruments used in measuring time. Historically, however, the main interest lies much less in the perfection of the results than in the method employed and in its influence on the further development. A close investigation of early Greek astronomy and mathematics⁶⁷ reveals an interesting fact. The determination of the time for the rising and setting of given arcs of the ecliptic, which lies at the heart of the question of the changing length of day and night, appears to be the most decisive problem in the development of spherical geometry. It is typical for the whole situation that a Greek "mathematical" work, the *Sphaerics* of Theodosius (ca. 200 B.C.), does not contain a single astronomical remark. The structure and contents of the main theorems, however, are determined by the astronomical problem in question; the methods applied constitute a very interesting link between the Babylonian linear methods and the final trigonometrical methods.

Trigonometry undoubtedly has a very

⁶⁵ Neugebauer [13] and [18].

⁶⁶ *Almagest* II, 7 and 8. Cf. also *Tetrabiblos* I, 20 (ed. Robbins, p. 94), 21 (ed. Boll-Boer, pp. 46, 47 ff.).

⁶⁷ This investigation has been carried out by Olaf Schmidt (doctoral thesis, Brown Univ., 1943 [unpublished]).

long history. We find the basic relations between the chord and diameter of a circle already in use in Old Babylonian texts which employ the so-called "Thales" and "Pythagorean" theorems.⁶⁸ In sharp contrast to the Greek models for the movement of the celestial bodies, which operate with circles and therefore necessarily require trigonometrical functions, we find no applications of trigonometry in the cuneiform astronomical texts of the Seleucid period which are exclusively based on arithmetical methods described above.

So far as we know, spherical trigonometry appears for the first time in the *Sphaeric* of Menelaos⁶⁹ (ca. A.D. 100). The astronomical background of this work is much more outspoken than in Theodosius, but here, too, much is left to the reader, who must be familiar with the methods of ancient astronomy to understand all the astronomical implications. The modern scholar faces an additional difficulty, namely, the modification of the Greek text by the Arabic editors. The Greek original is lost, and what we possess is only the Arabic version made almost a thousand years later. In this interval falls the gradual transformation of Greek trigonometry, operating with chords, to the modern treatment, which uses the sine function. It is well known that this change goes back to Hindu astronomy, where the chords subtended by an angle were replaced by the length of the half-chord of the half-angle,⁷⁰ i.e., our " $\sin \alpha$." It is, however, a much more involved question to separate these new methods from those used originally by Menelaos; this question must be answered if we wish to understand the development of ancient spherical astronomy. This, in turn, is

necessary in order to appreciate the contributions made by the Hindu-Arabic astronomers which eventually led to the modern form of spherical trigonometry.

13. It is of great interest to see that the very same problem—the determination of rising times—leads to still other methods which are now known partly as "nomography," partly as "descriptive geometry." We have a small treatise, written by Ptolemy, called the *Analemma*.⁷¹ He first introduces in a very systematic way three different sets of spherical coordinates, each of which determines the position of a point on the celestial sphere. Then these coordinates are projected on different planes, and these planes are turned into the plane of construction, just as we do today in descriptive geometry. Finally, certain scales are used to find graphically the relations between different coordinates, again following principles which we now use in nomography. The Arabs used and developed these methods in connection with the construction of sundials.⁷² Another method of projection, today called "stereographic," is given in Ptolemy's *Planisphaerium*. The theory of perspective drawing in the Renaissance is directly connected with this work.⁷³

The practical importance of the determination of the rising times or the length of the days is not restricted to the theory of sundials. The length of the longest day increases with the geographical latitude, thus giving us the means to determine the latitude of a place from the ratio of the

⁷¹ Ptolemy, *Opera* II, pp. 187–223. No complete translation of this badly preserved text has yet been published, but an excellent commentary has been given by Luckey [1]. These methods, using descriptive geometry, are of an older date, as is evident from the fact that they are already mentioned by Vitruvius (beginning of our era). Cf. Neugebauer [14] and Luckey [2].

⁷² Cf., e.g., Garbers *ES* and Luckey [2].

⁷³ Ptolemy, *Opera* II, pp. 225–59, translated in Drecker [1]; cf. also Loria in M. Cantor, *Geschichte der Mathematik*, IV, p. 582.

⁶⁸ Cf. Neugebauer-Struve [1], pp. 90–91; Neugebauer *MKT*, I, p. 180; and Neugebauer-Sachs *MCT*, Problem-Text A.

⁶⁹ Krause *Men*.

⁷⁰ Cf., e.g., Braunnühl *GT*, chap. 3.

shortest to the longest day. The ratio 3 : 2 accepted by Babylonian astronomers for the ratio of the longest to shortest daylight led the Greek geographers to determine erroneously the latitude of Babylon as 35° (instead of $32\frac{1}{2}^\circ$). This error seriously affected the shape of the eastern part of the ancient map of the world.⁷⁴ The precise relationship can only be established by using spherical trigonometry, but here, too, the "linear" methods were applied to various values of the basic ratio in order to give the law for the changing length of the days for the corresponding latitude. It must be remarked, however, that at this stage of affairs the concept "latitude" does not yet actually appear, but the ratio of the longest to the shortest day itself was used to characterize the location of a place. Zones of the same ratio were considered as belonging to the same "clima," a concept which plays a great role in ancient and medieval geography. The difference in character and behavior of nations living in different climates furnished one of the main arguments for the influence of astronomical phenomena on human life.⁷⁵

The second geographical coordinate—the longitude—caused more trouble. The difference in longitude between two places on the earth is essentially equivalent to the difference in local time. But there existed no clocks or signals to compare the local time at far-distant places. Only one phenomenon could be used as a time signal, namely, records of simultaneous observations of a lunar eclipse from two different places. If each observer took note of the local time at which he observed the beginning and end of a lunar eclipse, a

comparison of these records would then furnish the needed information. Hipparchus proposed the use of this method for an exact construction of the map of the world, but his program was never carried out. Only one pair of simultaneous observations seems to have been made, the eclipse of 331 B.C., September 20, recorded three hours earlier in Carthage than at Arbela.⁷⁶ Actually the difference in local time between these two localities is much smaller, and consequently the ancient map of the world suffers from a serious distortion in the direction from east to west. Here we see one of the most essential differences between ancient and modern science at work. Ancient science suffered most severely from the lack of scientific organization which is so familiar in our own times. In antiquity, generations passed before a new scientific idea found a follower able to use and develop methods handed down from a predecessor. The splendid isolation of the great scholars of antiquity can only be paralleled with the first beginnings of the new development in the European Renaissance. It seems to me beyond any doubt that even centers like Alexandria or Pergamon during their height would appear very poorly equipped if compared with a modern university of moderate size. And these centers themselves were few and practically isolated at any particular time; and at all times they were dependent upon the mood of some autocratic ruler. No wonder that the great achievements of antiquity are either the result of priestly castes of sufficiently stable tradition or of a few ingenious men who expended tremendous energy in restoring and enlarging the structure of a science known to them from the written legacy of their predecessors. One must not think

⁷⁴ For the determination of the size of the earth by Eratosthenes (about 250 B.C.), Marinus of Tyre (about A.D. 100), and Ptolemy (about A.D. 150), see Mžik *EGM*, pp. 96 ff., and, in general, Heidel *GM*, chap. xi. Cf. also Houigmann *SK* and Neugebauer [13].

⁷⁵ E.g., *Tetrabiblos* II, 2.

⁷⁶ Ptolemy *Geographia* I. 4. 2 (ed. Nobbe, p. 11). Cf. also Mžik-Hopfner *PDE*, p. 21, n. 3. For Hipparchus' program see Strabo *Geography* I. C. 7; also Berger *GPH*, pp. 12 ff.

that mathematics and astronomy, like the popular philosophical systems or the art of rhetoric, were taught in the same manner from generation to generation. Three centuries separate Hipparchus from Ptolemy, one Eudoxos from Euclid, Euclid from Archimedes and Apollonius. To be sure, the literary tradition was never interrupted between these outstanding men, but most of the intermediate literature at best merely preserved and commented. This explains not only why ingenious ideas were frequently lost (e.g., Archimedes' methods of integration) but also why it was so easy to destroy ancient science almost completely in a very short time. Astronomy alone had a slight advantage because of its practical usefulness in navigation, geography, and time-reckoning, supplemented by the fortunate accident that the Easter festival followed the lunar calendar of the Near East, thus sanctioning lunar theory when other secular sciences fell into total desuetude.

The extreme paucity of scientists at almost any given time in antiquity gave rise to another phenomenon in Greek literature: the publication of commentaries and popularizing works. A work like the *Almagest*, written in purely scientific style, was certainly unintelligible to the majority of people who needed or wanted to know a modest amount of astronomy. Hence books were written which attempted to explain Ptolemy's text sentence by sentence,⁷⁷ or which gave abstracts accompanied by explanations of the main principles as far as this could be done without mathematics.⁷⁸ We can observe the same phenomenon in geography. The first chapter of Ptolemy's *Geography*⁷⁹

contains a very interesting theory of map projection, whereas the remaining twelve chapters constitute an enormous catalogue of localities from all over the then known world and the corresponding values of longitude and latitude to be plotted into the network which was to be constructed according to the method explained in the first chapter. This, again, was not geography for the entertainment of the general reader. To satisfy popular tastes, there was another literature, represented by works like Strabo's *Geography*.⁸⁰ These more pleasant writings furnished serious competition to the strictly scientific literature and determined to a large extent the character of the field in late antiquity and the Middle Ages.

14. For the modern historian of ancient astronomy it is therefore of the greatest value to have an additional source of astronomical literature in which the earlier tradition was kept alive without interruption for a much longer period: the astrological texts. We have already mentioned that astrology in the modern use of the word appeared very late in antiquity. The art of casting horoscopes can be said to be a typical Hellenistic product, the result of the close contact between Greek and oriental cultures.⁸¹ We possess Greek papyri from Egypt from the beginning of our era to the Arabian conquest showing us the application of astronomical methods in a great number of specific horoscopes and in minor astronomical treatises.⁸² In addition, an enormous astrological literature is preserved, catalogued during the last fifty years in the twelve volumes of the *Catalogus* by Cumont and

⁸⁰ Edited and translated in the "Loeb Classical Library" by H. L. Jones (8 vols.; 1917-32).

⁸¹ Cf., e.g., Capelle [1], who shows that only weak traces of astrological ideas in Greek literature can be followed as far back as 400 B.C.

⁸² Concerning horoscopes, see above, n. 17. Examples of astronomical treatises are Pap. Ryl. 27, 464, 522/24, 527/28, or Curtis-Robbins [1].

⁷⁷ The commentaries of Pappus and Theon of Alexandria (and presumably of Hypathia) are of this type. For these texts cf. Rome *CPT*.

⁷⁸ Represented, e.g., by Theon of Smyrna (second cent. A.D.) or Proclus (fifth cent. A.D.).

⁷⁹ Edited by Nobbe (1843). The first chapter is excellently discussed by Mžik and Hopfner *PDE*.

his collaborators.⁸³ Finally, Vettius Valens, who wrote shortly before Ptolemy,⁸⁴ and Ptolemy himself as the author of the famous *Tetrabiblos*, must be mentioned.⁸⁵

Modern scholars have not yet made full use of this vast material. The reason is only too clear: the amount of work to be done surpasses by far the power of a single individual, and the work itself is certainly not very pleasant. The astronomical part must be extracted from occasional remarks, short computations, and similar instances submerged beneath purely astrological matter of a very unappealing character. But this work must eventually be done and will give valuable results. As an example might be mentioned the question of discovering the principle according to which the equinox was placed in the zodiac. This question must be answered, for on it depend our calculations in the determination of constellations, chronology, etc. Moreover, systematic checking of astrological computations will frequently yield information about the character of the astronomical tables used at the time.

We touch here upon a point of great importance for the modern attitude toward ancient astronomy. The usual treatment of ancient sciences as a homogeneous type of literature is very misleading. It is necessary to realize that very different levels of astronomy or mathematics were coexistent, almost without mutual contact or interference. One misses the essential points in the understanding of ancient astronomy if one naïvely considers various documents in their chronological order. Even works by the same person must sometimes be separated from one another. Ptolemy's *Almagest* is purely mathematical, the *Tetrabiblos* (written

after the *Almagest*)⁸⁶ is purely astrological, and his *Harmonics*⁸⁷ contains a chapter on the harmony of spheres employing concepts of the planetary movements which contains such strong simplification of the actual facts that one would try in vain to find similar assumptions in any of the other works of Ptolemy. In other words, it is necessary to evaluate each text in its proper surrounding and according to its traditional style. One cannot, for example, speak without qualification of the contact between Babylonian and Greek astronomy. Such a contact might even have worked in opposite directions in different fields. For instance, we have already referred to the possibility that Hellenistic astrology returned to Babylonia in the form acquired in Egypt or Syria, whereas observational material from Mesopotamia undoubtedly influenced Greek mathematical astronomy deeply. In general, it can be said that the growth of ancient sciences shows much more irregularity and stratification than modern scientists, accustomed to the fact of the uniform spread of modern ideas and methods, are prone to assume.

The lack of uniformity in the whole field of ancient astronomy in general necessarily interferes also with the investigation of any special problem. We have already mentioned the fact that astrology in the Assyrian age differed considerably from the horoscopic type which prevailed in late antiquity and the Middle Ages. But there exists a third type, standing between the omina type ("when this and this happens in the skies, then such and such a major event will be the consequence") and the individual birth horoscope, namely, the "general prognostication," explained in full detail in the first two books of the *Tetrabiblos*. This type of

⁸³ CCAG. Cf. also Boll [2].

⁸⁴ Kroll VV.

⁸⁵ Ptolemy, *Opera* III, 1, and "Loeb Classical Library" (ed. F. E. Robbins).

⁸⁶ This follows from the introduction to the *Tetrabiblos*.

⁸⁷ Düring HP and PPM.

astrology is actually primitive cosmic physics built on a vast generalization of the evident influence of the position of the sun in the zodiac on the weather on earth. The influence of the moon is considered as of almost equal importance, and from this point of departure an intricate system of characterization of the parts of the zodiac, the nature of the planets, and their mutual relations is developed.⁸⁸ This whole astronomical meteorology is, to be sure, based on utterly naïve analogies and generalizations, but it is certainly no more naïve and plays no more with words than the most admired philosophical systems of antiquity. It would be of great interest for the understanding of ancient physics and science in general to know where and when this system was developed. The question arises whether this is a Greek invention, replacing the Babylonian omen literature, which must at any rate have lost most of its interest with the end of independent Mesopotamian rule, whether it precedes the invention of the horoscopic art for individuals or merely represents an attempt to rationalize the latter on more general principles.⁸⁹ Thus we see that even in a single field of ancient astronomical thought the most heterogeneous influences are at work; the analysis of these influences has repercussions on almost every aspect of the study of ancient civilizations.⁹⁰

15. The same branching-off into very different lines of thought must also be recognized in the development of Greek mathematics. The line of development characterized by the names of Eudoxus, Euclid, Archimedes, and Apollonius is to be separated sharply from writings like

Heron⁹¹ and Diophantus⁹² or the *Arithmetica* of Nicomachus of Gerasa.⁹³ Here, again, the question of oriental influence cannot be discussed as one common phenomenon. Egyptian calculation technique and mensuration were certainly continued in similar works in Hellenistic Egypt and found their way into Roman and medieval practices. At the same time, Babylonian numerical methods influenced Alexandrian astronomy. How Babylonian algebraic concepts eventually reached Greek writers like Diophantus is still completely unknown, but that it did is supported by the strong parallelism in methods and problems.⁹⁴ Equally lacking is detailed information as to the revival of these methods in Moslem literature.⁹⁵ On the other hand, the problems which emerged from the discovery of the irrational numbers are undoubtedly of Greek origin. It is, however, not correct to consider writings of the same person as equally representative of "Greek" mathematics. Those parts of Euclid's *Elements* (the majority of the work) which deal more or less directly with the problem of irrational numbers are, as we said before, Greek. Most likely of equally Greek origin is Euclid's astronomical treatise called *Phenomena*,⁹⁶ which is written on so elementary a level that nobody would attribute it to the author of the *Elements* if the authorship were not so firmly established. And, finally, Euclid's *Data*⁹⁷ contains the treatment of purely algebraical problems by geometrical means—which can be interpreted as the direct geometrical transla-

⁹¹ First century A.D.; cf. for this date Neugebauer [14], pp. 21 ff.

⁹² Usually dated about A.D. 300; cf., however, Klein [1], p. 133, n. 23.

⁹³ Greek text ed. Hoche (Leipzig, 1866); English translation; D'Ooge-Robbins-Karpinski *Nic.*

⁹⁴ Vogel [2]; Gandz [3].

⁹⁵ Gandz [1], [2], [3].

⁹⁶ *Opera* VIII; cf. above, p. 16.

⁹⁷ *Opera* VI.

⁸⁸ For the whole complex of the ancient justifications of astrology, see Duhem, *SM*, II, 274 ff.

⁸⁹ This is the assumption of Kroll [1], p. 216, for the tendency exhibited in Ptolemy's *Tetrabiblos*.

⁹⁰ Cf. the excellent survey of this situation in Boll [2].

tion of methods well known to Babylonian mathematics.⁹⁸ These methods of "geometrical algebra" in turn determine the whole structure of Apollonius' theory of conic sections.⁹⁹

Greek mathematics is by far the best-investigated field of ancient science (and of the history of science in general);¹⁰⁰ the situation with respect to the source material is very good¹⁰¹—except where only Arabic manuscripts are preserved.¹⁰² But one must not forget that also this tradition suffers from severe gaps. This is due not only to the destruction of manuscripts over a period of two thousand years but also to the effect of literary influence. I refer not only to the above-mentioned elimination of older treatises by the overshadowing of the great works of the Hellenistic period. The Greeks themselves contributed to the distortion of the picture of the actual development by inventing seemingly plausible stories where the real records were already lost. The oft-repeated stories about Thales, Pythagoras, and other heroes are the result.¹⁰³ We should now realize that we know next to nothing about earlier Greek mathematics and astronomy in general and about the contact with the Near East and its influence in particular. The method which involves the use of a few obscure citations¹⁰⁴ from

late authors for the restoration of the history of science during the course of centuries seems to me doomed to failure. This amounts to little more than an attempt to understand the history of modern science from a few corrupt quotations from Kant, Goethe, Shakespeare, and Dante.

16. Undoubtedly the most spectacular advances in the history of astronomy until very recent times were scored in the theory of the planets. The catch-words "Ptolemaic" and "Copernican" refer to different assumptions as to the mechanism of the planetary movement. This is not the place to underline the fact that the Copernican theory is by no means so different from or so superior to the Ptolemaic theory as is customarily asserted in anniversary celebrations,¹⁰⁵ but we must briefly analyze Ptolemy's own claims to having been the first one who was able to give a consistent planetary theory.¹⁰⁶ This claim seems to contradict not only the existence of pre-Ptolemaic planetary tables in Roman Egypt as well as in Mesopotamia but also Ptolemy's own reference to such texts. What Ptolemy means, however, becomes clear if one reads the details of the introduction to his own theory. He requires an explanation of the planetary movement by means of a combination of uniform circular movements which refrains from simplifications like the assumption of an invariable amount for the retrograde arc and similar deviations from the actual observations. Indeed, in order to remain in close agreement with the observations, Ptolemy had to overcome difficulties which Hipparchus was not able to

⁹⁸ Neugebauer [15].

⁹⁹ Zeuthen *KA* and Neugebauer [16].

¹⁰⁰ Best exposition: Heath *GM* and *MGM* and Euclid. A selection of texts is given in Thomas *GMW*.

¹⁰¹ Most of the texts are edited in the Teubneriana collection.

¹⁰² Menelaos alone is now edited (Krause *Men.*), but Books v, vi, and vii of Apollonius' *Conic Sections* are still unavailable in a modern edition. Archimedes' construction of the heptagon is published in a free translation of the Arabic version in Schoy *TLAB*, pp. 74–91; cf. also Tropfke [1].

¹⁰³ As an example might be mentioned the criticism of the story of the Thales eclipse by Pannekoek [3], p. 955; Dreyer *HPS*, p. 12, n. 2; Neugebauer [9], pp. 295–96. Cf. also Frank, Plato, or Heidel [1].

¹⁰⁴ The fragments collected by Diels *VS* not only give an extremely incomplete picture of the lost writings but were certainly very much distorted by the

authors from whose works they are taken. One needs only to look at the picture of oriental writings obtained from Greek tradition as compared with the originals.

¹⁰⁵ The correct estimate can be found in Thorndike *HM*, Vol. V, chap. xviii.

¹⁰⁶ *Almagest* IX, 2.

master and which led Ptolemy to a model which is very close to Kepler's final solution of the problem, by assuming not only an eccentric position of the earth but also an eccentric point around which the movement of the planetary eccentric appears to be uniform. The resulting orbit is of almost elliptical shape with these two points as foci.¹⁰⁷ This whole theory is closely related in method to the explanation of the "evection" of the moon (a periodic perturbation of the moon's orbit discovered by Ptolemy) by a combination of eccentric and epicyclic movements. Both theories are real masterpieces of ancient mathematical astronomy which far surpassed all previous results.

It is not surprising that Ptolemy's results overshadowed all previous works. All that we know about his forerunners comes mainly from the *Almagest* itself. We hear that Hipparchus used eccenters and epicycles for the explanation of the anomalies in the movement of the sun and the moon,¹⁰⁸ and we learn about theorems for such movements proved by Apollonius.¹⁰⁹ This brings us to the very period (about 200 B.C.) from which the oldest cuneiform planetary texts are preserved—computed, however, on entirely different principles. These cuneiform texts cover the two centuries down to the time of Caesar. A direct continuation, chronologically speaking, but of still another type, are planetary tables from Egypt, written in Demotic or Greek.¹¹⁰ These tables give the dates at which the planets enter or leave the signs of the zodiac. Such tables were known to Cicero¹¹¹ and are most likely the "eternal tables" quoted with contempt by Ptole-

my.¹¹² We do not know how these tables were computed, and their occurrence in Greek as well as in Demotic leaves us in doubt as to their origin—showing us only the degree of interrelation we can expect in Hellenistic times.

The most interesting question would, of course, be to learn more about Hipparchus' astronomy. He is most famous as the discoverer of the precession of the equinoxes. Though this fact cannot be doubted,¹¹³ underlining its importance lays the wrong emphasis on a phenomenon which gained its importance only from Newton's theory, which showed that precession depends on the shape of the earth and thus opened the way to test the theory of general gravitation by direct measurements on the earth. For ancient astronomy, however, precession played a very small role, requiring nothing more than sufficiently remote and sufficiently reliable records of observations of positions of fixed stars. The change in positions must then eventually become evident; and little difficulty was encountered in incorporating this slow movement into the adopted model of celestial mechanics. What we actually need to appreciate in Hipparchus' contribution must be derived from a careful study of all relevant sections of the *Almagest*, not by the schematic method of obtaining "fragments" from direct quotations but by a comparison of Ptolemy's methods and the older procedures which he frequently mentions. That such an approach can lead to well-defined results has recently been shown in the theory of eclipses.¹¹⁴

17. One of the most important prob-

¹⁰⁷ Cf. Schumacher [1] for the Ptolemaic theory of Venus and Mercury. For the Greek planetary theory in general, see Herz *GB* I.

¹⁰⁸ *Almagest* III, 4.

¹⁰⁹ *Almagest* XII, 1 (=Apollonius, ed. Heiberg, II, 137).

¹¹⁰ Neugebauer [3]. Cf. above, p. 5.

¹¹¹ Cicero *De divinatione* II, 6, 17; cf. also II, 71, 146.

¹¹² *Almagest* IX, 2.

¹¹³ Schnabel's attempts (Schnabel [1]) to prove that precession was taken into consideration in the cuneiform texts are, to say the least, inconclusive and in part based on mere scribal errors.

¹¹⁴ Schmidt [1].

lems in connection with Hipparchus is, of course, the problem of the dependence of Hipparchus (and Greek astronomy in general) on Babylonian results and methods. Whatever the conclusions derived from a deeper knowledge of Hipparchus' astronomy may turn out to be, one thing is clear: the century between Alexander's conquest of the Near East and Hipparchus' time is the critical period for the origin of Babylonian mathematical astronomy as well as for its contact with Greek astronomy. Since Kugler's discoveries, which showed the exact coincidence between numerical relations in cuneiform tablets and in Hipparchus' theory,¹¹⁵ no one has doubted Babylonian priority. It is an undeniable fact that the Babylonian theory is based on mathematical methods known already in Old Babylonian times and does not show any trace of methods considered to be characteristically Greek. The problem remains, however, to answer the question: What caused the sudden outburst of scientific astronomy in Mesopotamia after many centuries of a tradition of another sort? On what background can we understand, for example, the report¹¹⁶ that the "Chaldaean" Seleucus from Seleucia on the Tigris¹¹⁷ completed the heliocentric theory, previously proposed as a hypothesis by Hipparchus? Greek influence on late Babylonian astronomy must not be denied or asserted on aprioristic grounds, if we really want to understand a phenomenon of great historical significance.

These remarks are not intended to make Greek influence alone responsible for the new developments in Mesopotamia. As a matter of fact, this answer would only raise the equally unsolved

question why Greek astronomy suddenly emerged from many centuries of primitiveness to a scientific system. The alternative, Greek or Babylonian, might even exclude the right answer from the very beginning. It also seems possible that the rise of mathematical astronomy in Hellenistic times resulted from the suddenly intensified contact between several types of civilization, in some respects to be paralleled with the origin of modern science in the Renaissance. In other words, neither the Greeks nor the Orientals might have been alone responsible for the new development but rather the enormous widening of the horizon of all members of the culture of the Hellenistic age. One result of this process was probably the new attitude toward the relationship between the individual and the cosmos, expressed in the new form of horoscopic astrology. In this case it is quite evident that Egypt and Greece—and perhaps Syria as well—contributed about equally much to the refinement and spread of this new creed. It is equally possible that the contact between Greek scholars, trained to think in geometrical terms which Greek mathematics had developed in the fifth century, and Babylonian astronomers, equipped with superior numerical methods and observational records, brought into simultaneous existence two closely related types of mathematical astronomy: the treatment by arithmetical means in Babylonia and the model based on circular movements in the Greek centers of learning in the eastern Mediterranean. It may well be that competition, not borrowing, was the chief contributor to the initial impetus.¹¹⁸ At any rate, it is clear that each detail in the development of Hellenistic astronomy which we will be able to understand better will reveal a new aspect in the fascinating process of the

¹¹⁵ Kugler *BMR*, p. 40.

¹¹⁶ Plutarch *Plat. quaest.* vii. 1. 1006 C (ed. Bernardakis, *Moralia*, VI, 138). Cf. also Heath, *AS*, pp. 305 ff. and Duhem *SM*, I, 423 ff.

¹¹⁷ Strabo xvi. 739. Seleucus may have lived about 150 B.C.

¹¹⁸ Neugebauer [17], pp. 30–31.

creation of the new world which was destined to become the foundation of the Roman and medieval civilizations.

The unique role of the Hellenistic period in the field of sciences, as in other fields, can be described as the destruction of a cultural tradition which dominated the Near East and the Mediterranean countries for many centuries, but also the founding of a new tradition which held following generations in its spell. The history of astronomy in the Hellenistic age is especially well suited to demonstrate that the great energies liberated by the disintegration of an old cultural tradition are very soon transformed into stabilizing forces of a new tradition, which includes about as many elements of development as of stagnation.

V. SPECIAL PROBLEMS

18. Every research program in a complex field will face the need of constant modification and adjustment to unforeseen complications and new ramifications. Problems can arise and results be obtained without having been anticipated in the original question. The context of a mathematical text, for example, can determine with absolute certainty the meaning of a word otherwise only vaguely defined; sign-forms in a papyrus which is exactly dated by astronomical means may furnish valuable information for purely paleographical problems. From dates and positions given in Demotic astronomical texts, it follows that the Alexandrian calendar introduced by Augustus was used by Egyptian scribes only a few years after the reform,¹¹⁹ very much in contrast to the common opinion that the Egyptians were especially conservative in general and in calendaric matters in particular. In short, from few, but solidly established, facts we can learn more than from all general speculations.

¹¹⁹ Neugebauer [6], p. 119.

One of the problems which at first sight lies very much outside the history of ancient astronomy is the study of social and economic conditions of the ancient civilizations. There are, however, several points of contact between these studies and astronomy. We are indebted to Cumont for a masterly investigation of the information contained in the astrological literature from Hellenistic Egypt.¹²⁰ His results are not only of interest for the history of ancient civilization but also illustrate very well the background of the men who used and transmitted the astronomical material known to us from the planetary tables or from Vettius Valens. It turns out that the soil in which these practices were rooted was essentially Egyptian, in spite of the use of the Greek language in the documents. This is in perfect harmony with the close parallelism between Greek and Demotic planetary texts mentioned above and shows the constant interaction of Greek and native influences in Hellenistic Egypt. It also shows how dangerous it is to decide the authorship of Hellenistic doctrines or methods simply on the basis of such superficial grounds as the language used.

The analogous question for Babylonia seems to be easier to answer. The Mesopotamian origin of the astrological omina cannot be doubted. We would, however, like to know more about the background of the astronomers of the latest period. It is well known that the names of three Babylonian astronomers appear in Greek literature¹²¹ and that two of them actually were found on astronomical tablets, though in an unclear context. For one particular place, the famous city of Uruk in South Babylonia, we can go much further. It can be shown that the scribes and owners of our texts belong to one of two

¹²⁰ Cumont *EA*. See also Kroll [1].

¹²¹ Cumont [1].

"families," or perhaps "guilds," of scribes who frequently call themselves scribes of the omen-series "Enuma Anu Enlil."¹²² We can follow the work of these scribes very closely for almost a hundred years until the school of Uruk ceased to exist, probably because of the Parthian invasion of Babylonia in 141 B.C. In contrast thereto, the school of Babylon survived the collapse of the Greek regime, as is proved by a continuous series of astronomical texts down to 30 B.C. This is an interesting result in comparison with the assumption that Babylon practically ceased to exist after the Parthian occupation. The grouping of our texts according to well-defined schools is also of interest from another point of view. It can be shown that two different systems of computation existed side by side for a long time. Competing schools of this sort constitute a phenomenon which is usually considered characteristic for Greek culture.

19. Countless thousands of business documents are preserved from all periods of Mesopotamian history. For the urgently needed investigation of ancient economics, a precise knowledge of the metrological systems is of the greatest importance. Unfortunately, the scientific study of Babylonian measures has been sadly neglected. Fantastic ideas about the level and importance of astronomy in the earliest periods of Babylonian history led to theories which brought measures of time and space in close relationship with alleged astronomical discoveries. We know today that all these assumptions of the early days of Assyriology must be abandoned and that Babylonian metrology must be studied from economic and related texts clearly separated according to period and region. For the determination of Old Babylonian relations between various measures, the mathematical texts

are of great value because they contain numerous examples which give detailed solutions of problems in which metrological relations play a major role. The consequences of such relations, established with absolute certainty, are manifold. For example, we now know from Old Babylonian mathematical texts the measurements of several types of bricks¹²³ as well as the peculiar notation used in counting bricks. It is evident that such information is of importance for the understanding of contemporary economic texts dealing with the delivery of bricks for buildings, thus leading to purely archeological questions. Metrological relations are also needed if we wish to gain an insight into wages and prices.¹²⁴ Returning to our subject, it must be said that metrology is of great importance not only for the history of the economics of Mesopotamia but also for purely astronomical problems. Distances on the celestial sphere are measured in astronomical texts by units borrowed from terrestrial metrology. The comparison between ancient observation and modern computations thus requires a knowledge of the ancient relations between the various units. This problem is by no means simple because our astronomical material belongs to relatively late periods, Assyrian and Neo-Babylonian, and the metrological system of these times is much more involved than the Old Babylonian. Mathematical texts would certainly be of great help here too, but the few tablets from this period are so badly preserved that they present us with at least as many new questions as they answer. Neo-Babylonian economic texts will therefore furnish the main point of departure for the study

¹²² Neugebauer-Sachs *MCT*, Problem-Text O and Sachs [1].

¹²³ For this series cf. Boll-Bezold-Gundel *SS*, pp. 2 ff., and Weidner [2].

¹²⁴ Waschow [1], p. 277, found, in discussing mathematical texts, that the value of the area-measure "se" must be changed by a factor 60 against older assumptions. It is obvious how such facts influence the interpretation of economic texts.

of the latest phase of Mesopotamian metrology and its astronomical applications.

It might be mentioned, in this connection, that theories about direct relationship between early Mesopotamian metrology and astronomy also gave rise to the rather unfortunate concept of high accuracy in the determination of weights, measures of length, etc. It is of great importance to realize that the absolute values of all metrological units are subject to great margins of inaccuracy and local and temporal variations. The first step in a historical investigation of Mesopotamian metrology must therefore be to establish from economic and mathematical texts the *ratios* between the units; these ratios have an incomparably better chance of showing uniformity than the absolute values deduced from accidental archeological finds.

20. Closely related to metrological problems is the question of the accurate identification of ancient star configurations. Much work remains to be done before it will be possible to give a reliable history of the topography of the celestial sphere in general, or even of the zodiacal constellations.¹²⁵ In spite of attempts to make Egypt responsible for many forms,¹²⁶ the predominant influence of Babylonian concepts on the grouping of stars into pictures must be maintained. But neither Babylonian nor Egyptian developments are known in detail. The identification of Egyptian constellations is especially difficult, mainly because it must be based on relations between the times of rising and setting and therefore depends on elements which are grossly schematized in the texts at our disposal. The situation in Mesopotamia is slightly better because we have actual observations in addition to the

schematic lists, at least for the later periods which are of special importance for the Hellenistic forms of the constellations.

For the period following the publication of the *Almagest*, we must take into account the possibility of still other complications. We know from explicit remarks in the *Almagest* that Ptolemy's star catalogue introduced deviations from older catalogues.¹²⁷ Astrological works, however, may very well have maintained pre-Ptolemy standards both with respect to the boundaries of constellation and the counting of angles in the zodiac. We have already mentioned the stubborn adherence of astrological writers to methods of computation which were made obsolete by the development of spherical trigonometry.¹²⁸ For the modern historian it is therefore of importance to establish the specific standard according to which a given document was written, especially when chronological problems are involved.

21. While metrology is a much-needed implement for economic history and the understanding of ancient astronomy, astronomy itself serves general history in chronological problems. Chronology is the necessary skeleton of history and owes its most important fixed points to astronomical facts. We need not emphasize the use of reports of eclipses, especially solar eclipses, for the determination of accurate dates to form the framework into which the results of relative chronology must be fitted. It must be underlined, however, that the available material is by no means exhausted. A better understanding and reinvestigation of the reports of the Assyrian astronomers will certainly furnish new information of chronological value. It must be stated, on the other

¹²⁵ The best summary is given by the Boll-Gundel article, "Sternbilder," in Roscher *GRM*, Vol. VI (1937), cols. 867-1072.

¹²⁶ Cf. esp. Gundel *DD* and *HT* and the criticism of Schott [2].

¹²⁷ *Almagest* VII, 4 (ed. Heiberg, p. 37).

¹²⁸ Cf., e.g., *Tetrabiblos* I, 20 (ed. Robbins, pp. 94-95).

hand, that not too much is to be expected from older material. In order to make ancient observations accessible to modern computation, a certain degree of accuracy must be granted; this accuracy seems to be missing in the earlier phases of the development of astronomy. This, for instance, makes the older Egyptian material so ill suited for chronological purposes. For later periods, however, Egypt has furnished and will furnish much information from astrological documents. It is particularly calendaric questions, such as the use of eras and similar problems, which have been illuminated by the dating of horoscopes.

The great variety of calendaric systems, local eras, and older methods of dating raises many difficulties in ancient chronology. This difficulty was clearly felt also by ancient astronomers and was the cause of the early use of consistent eras in Babylonian and Greek astronomy. The Babylonian texts always use the Seleucid Era, whereas Ptolemy reduces all dates to the Nabonassar Era but uses the Old Egyptian years of constant length. This crossing of Egyptian and Babylonian influences is paralleled by the subdivision of the day into hours. The Egyptians divided the day into twelve parts from sunrise to sunset, thus obtaining hours whose length depended on the season. The Babylonian astronomers used six subdivisions of day and night, but these units were of constant length. Combining the Egyptian division into 24 hours with the Babylonian constancy of length, the Hellenistic astronomers used "equinoctial" hours for their computations and solved the problem of finding the relationship between seasonal and equinoctial hours by spherical trigonometry.¹²⁹ One sees here again what a multitude of relations, problems, and methods contributed to shape concepts such as a continuous era or the 24-

hour day which are so familiar to us today.

Ancient chronology and the accurate analysis of ancient reports have turned out to be of interest even to a modern astronomical problem. In 1693 Halley discovered the fact¹³⁰ that the moon's position appeared to be advanced compared with the expected position as computed from positions recorded by Ptolemy. This "acceleration" can be explained by a slow increase in the length of the solar day or by a decrease in the rotational velocity of the earth. Such a decrease is caused by tidal forces,¹³¹ and it is of great interest to determine the amount as accurately as possible. For this purpose, accurate positions of the moon in remote times are of great value, and such positions can, indeed, be derived from records in cuneiform texts.¹³² Modern measurements of high precision can thus be supplemented by observations in antiquity.

22. Not only are Hellenistic astronomy and Hellenistic astrology the determining factors for the astronomy and astrology of the Middle Ages in Europe, but its influence is equally important for the development of astronomical methods and concepts in the Middle and Far East. We must therefore at least mention an enormous field which still awaits systematic research: Hindu science. This does not mean that there is not an extensive literature on this subject; indeed, even a small number of original texts are published.¹³³ The main trouble lies, however, in the tendency of the majority of publications by Hindu authors to claim priority for Hindu discoveries and to deny foreign in-

¹³⁰ Edm. Halley, "Emendationes ac notae Abatënii observationes astronomicas, cum restitutione tabularum lunisolarum ejusdem authoris," *Philosophical Transactions*, 17 (1693), No. 204, pp. 913-21.

¹³¹ Cf., e.g., Jeffreys [1].

¹³² P. V. Neugebauer [1].

¹³³ For the literature until 1899, see Thibaut *AA M.* The best discussion of Hindu astronomy is still Burgess *SS* (1860).

¹²⁹ *Almagest* II. 9,

fluence, as well as in the opposite tendency of some European scholars. This tendency has been especially strong so far as Hindu mathematics is concerned,¹³⁴ and it is aggravated by the inadequate publication of the original documents, from which usually only scattered fragments are cited in order to prove some specific statement. As a result, there is no means today to obtain an independent judgment from the study of the original texts which are preserved in enormous number, though of relatively late date for the most part.

The situation with respect to Hindu astronomy is not much better. There can be little doubt that the original impetus came from Hellenistic astronomy; the use of the eccentric-epicyclic model alone would be sufficient proof even if we did not also find direct witness in the use of Greek terminology.¹³⁵ This fact is interesting in itself, but it may very well be that the period of reception lies between Hipparchus and Ptolemy; systematic study might therefore reveal information about pre-Ptolemaic Greek astronomy no longer preserved in available Greek sources. Hindu astronomy would in this case constitute one of the most important missing links between late Babylonian astronomy and the fully developed stage of Greek astronomy represented by the *Almagest*.

The fundamental difficulty in the study of Hindu astronomy lies in the character of the preserved textual material. The published and commented texts consist exclusively of cryptically formulated verses giving the rules for computing certain phenomena, making it extremely difficult to understand the actual

¹³⁴ Cf., e.g., Datta-Singh *HHM* (reviewed in Neugebauer [12]).

¹³⁵ Thibaut *AA M*, pp. 43 ff. The Babylonian ratio 3 : 2 for the ratio between the longest and shortest days of the year also occurs in India (Thibaut *AA M*, pp. 26-27; Kugler *BMR*, pp. 82 and 195), though it would be suitable only for the latitude of the northern corner of India. For the planetary theory, see Kugler *BB*, p. 120; Schnabel [2], p. 112; Schnabel [1], p. 60.

process to be followed. It is evident, on the other hand, that no astronomy of an advanced level can exist without actually computed ephemerids. It must therefore be the first task of the historian of Hindu astronomy to look for texts which contain actual computations. Such texts are, indeed, preserved in great number, though actually written in very late periods. Poleman's catalogue¹³⁶ of Sanskrit manuscripts in American collections lists about a hundred such manuscripts in the D. E. Smith collection in Columbia University in New York. In their general arrangement, these texts are reminiscent of the cuneiform ephemerids from Seleucid times and must reveal many details of the Hindu theory of the planetary movement if attacked by the same methods which have proved so successful in the case of the Babylonian material. The complete publication of this material is an urgent desideratum in the exploration of oriental astronomy.

As mentioned above, the texts in the D. E. Smith collection are of very recent origin, only a few centuries old. This does not mean that the methods used are not of very much earlier date. This is shown by the investigation of one of these texts,¹³⁷ which deals with the problem of the varying length of the days during the year. Though written about 1500, the computations are based on methods going back to a much older period. Analogous results can be expected in the remaining material, and there is no reason to assume that the D. E. Smith collection exhausts all the preserved material.

23. In the preceding sections we have frequently touched on methodological questions. In closing, I wish to underline a few principles in a more general way. As is only natural, the study of the development of ancient science began under the

¹³⁶ Poleman *CIM*, pp. 231 ff. See also Emeneau *PIT*, pp. 318 ff.

¹³⁷ Schmidt [2].

influence of the ancient tradition. Herodotus, Diodorus, the commentators of Plato, etc., were the sources which determined the picture of the early stages of Greek and oriental mathematics and astronomy. But while students of political history, art, economics, and law learned in the early days of systematic archeological research to consider this literary tradition about the ancient Orient as nothing more than a supplementary source to be checked by the original documents, the majority of historians of the exact sciences have remained in a stage of naïve innocence, repeating without criticism the nursery stories of ancient popular writers. This is all the more surprising because many of these stories should have revealed their purely fictitious character from the very beginning. Every invention considered of basic importance is attributed to a definite person or nation: Thales "discovered" that a diameter divides the area of a circle into two equal parts, Anaximandes and several others are credited with the discovery of the obliquity of the ecliptic, the Egyptians discovered geometry, the Phoenicians arithmetic—and so on, according to an obvious pattern of naïve restoration of facts the origins of which had been totally forgotten. Modern authors then add stories of their own, such as the idea that the construction of the pyramids required mathematics, the assumption of supposedly marvelous skies of Mesopotamia,¹³⁸ and the notion of Egyptian Stone Age astronomers industriously determining the heliacal rising of Sirius or carrying out a geodetic survey of the Nile Valley.

It is clear that the replacement of the traditional stories by statements based exclusively on results obtainable from the original sources will not be very appealing. This is the inevitable result in the devel-

opment of every science; for increased knowledge means giving up simple pictures. In the history of science, an additional element must be added to the steady increase of complexity resulting from a better understanding of our sources. Not only do we learn to interpret our material more accurately but we also learn to see everywhere the immense gaps in our preserved sources. We will more and more be forced to admit that many, and essential, steps in the development of science are hopelessly destroyed; that we, at best, are able to sketch mere outlines of the history of science during certain sharply limited periods; and that many of the driving forces might actually have been quite different from those which we customarily restore on the analogy of later periods.

One consequence of this situation seems to me to be evident: unless the history of science now enters the stage of specialization, it will lose all value in the framework of historical research. It must be clearly understood that the history of science must work with methods and must consider its problems from viewpoints which correspond to the methods and standards of other branches of historical research. The idea must definitely be abandoned that the history of science must adapt its level to the alleged requirements of the teaching of the modern fields of science. The intrinsic value of this research must be seen in its contribution to our understanding of the historical processes which shaped human civilization, and it must be made clear that such an understanding cannot be reached without the closest contact with the other historical fields. The call for specialization is not very popular. I am convinced, however, that a well-founded insight into the details of a single essential step in the development is at present of higher value and more fascinating than any attempt at general syn-

¹³⁸ For the poor conditions of actual observation cf. Koldewey *WB*, p. 192; Vogt [1], pp. 38-39; cf. also Boll [1], pp. 48 and 157.

thesis. It is ridiculous to believe that we are anywhere able to reach "final" results in the study of the development of human civilization. But the overwhelming richness of all phases of human history can be appreciated only if we occupy ourselves with the real facts as accurately as possible and do not attempt to hide their manifold aspects under the veil of hazy generalizations or let our judgment be guided by the naïve idea of human "progress." Every synthesis written fifty years ago is now completely antiquated and at best enjoyable for its literary style; the careful study of the original works of the ancients, however, will reveal to everyone and at any time the development of their achievements.¹³⁹

The call for specialization must not be misunderstood as a plea for the disregard of the general outlines of the historical conditions. On the contrary, specialized work can be accomplished successfully only if the points of attack are selected under constant consideration of possible interference from other problems and other fields. It is indeed the most gratifying result of detailed research on a well-defined problem that it necessarily uncovers relationships which are of primary importance for the understanding of larger

¹³⁹ An excellent example is Delambre *HAA*, published in 1817 and still not surpassed or even equaled because of its direct contact with the original sources.

historical processes. The actual working program, however, needs restriction and minute detail work. The most essential task is that of making the original sources accessible as easily as possible in their best available form. By the indefatigable work of Heiberg, Hultsch, Tannery, and many others, we possess today a great part of the extant writings of the Greek scientists in excellent editions. We owe to Sir Thomas Little Heath many brilliant commentaries and translations of Greek mathematicians.¹⁴⁰ To make Greek and oriental source material more generally accessible, supplemented, of course, by modern translations and commentaries, will be the foremost problem of the future. The extension of this program to include medieval material, on the one hand, and Middle Eastern documents, on the other, appears as a logical consequence, worthy of the serious efforts of all scholars who wish to contribute to the understanding of the past of our own culture.

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¹⁴⁰ On the other hand, much remains to be done to repair the harm caused by classical philologists who made their editions inaccessible to modern scientists by translating them into Latin instead of a modern language. Great opportunities have been spoiled by this absurd attitude. It has fortunately never occurred to Orientalists to translate their texts into Hebrew. It should be mentioned, however, that the Arabic version of Euclid's *Elements* was published in Latin (!) translation by Besthorn, Heiberg, and others (Copenhagen, 1897-1932).

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- QS *Quellen und Studien zur Geschichte der Mathematik, Astronomie und Physik.*
 RA *Revue d'assyriologie.*
 Rec. trav. *Recueil de travaux relatifs à la philologie et à l'archéologie égyptiennes et assyriennes.*
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OLD PERSIAN TEXTS

ROLAND G. KENT

VI. DARIUS' NAQŠ-I-RUSTAM B INSCRIPTION

THE trilingual inscriptions on the tomb of Darius the Great at Naqš-i-Rustam are among the most interesting of the ancient Persian records, containing not merely Darius' own statement of his achievements, but also his evaluation of his own character: however prejudiced his account, it is a Persian's account of what a Persian ought to be. Now these inscriptions, apart from the smaller legends attached to individual figures in the sculptures, consist of two sets of panels: the upper, known as Darius NRa, or more briefly DNa (which is my preference), with Darius' account of his achievements; and the lower, known as Darius NRb or DNb, with his account of his character.

DNa is more easily legible, and the complete text of the three versions has long been known in virtually correct form, though a few revisions have been made in recent years as a result of renewed scrutiny and new photographs. But DNb, which is more poorly preserved, has been known only in very defective form until a few years ago, when Ernst Herzfeld made a painstaking examination, the results of which he published in 1938 in his *Alt-persische Inschriften*, pages 4-13, with charts of the OP and Akkadian versions in the original cuneiform script, showing the characters and parts of characters which were visible to him. He presented also the OP and Akkadian texts in transliteration and in normalized form, with a translation into German, and some brief notes on these texts and on the fragments of a fourth version in Aramaic; this stands

at the foot of a panel below the third or Elamite version, which is the most damaged and is still unread. Herzfeld's Plate III gives a portion of the OP text, from an excellent photograph.

After the receipt of Herzfeld's volume, I attempted a complete presentation of the OP version in *Language*, XV (1939), 160-75, following Herzfeld in most matters connected with DNa, but seeking to fill as many as possible of the remaining gaps. This text can now be somewhat modified and improved with the aid of photographs taken for Erich F. Schmidt in 1938, which have courteously been placed at my disposal by the authorities of the Oriental Institute of the University of Chicago. Professor George G. Cameron has also allowed me to use his own unpublished transcript of the first 41 lines of the OP text (of DNb), made from the Schmidt photos without reference to other sources and thus avoiding possible erroneous presuppositions, with his subsequent critical notes; he has also meticulously compared my text and notes with enlargements of the Schmidt photographs, and allowed me to incorporate the results of this comparison. His more than friendly help has been so thoroughgoing that in fairness I must insist that any merits which this article may have are attributable quite as much to him as to me.

The Schmidt photographs were taken in a horizontal position from a gigantic scaffolding erected in front of the inscription, and show the entire OP text of DNb (corresponding photos of the other versions were made, but their interpretation

lies outside my competence).¹ In quality they are much superior to the older photographs (listed in *Lang.*, XV, 161), as is shown by the readings which they yield; quantitatively, they show the entire text, while Herzfeld's Plate III in *ApI* gives only the first half of lines 1-19. On the other hand, they do not entirely replace Herzfeld's hand-drawn chart and his transcription, since the visibility of cuneiform characters in a photograph depends upon the casting of shadows and the differing intensities of the illumination on directly illuminated surfaces; thus where the surface has scaled or otherwise weathered there may still be traces of the strokes which can be identified by the human eye, but would fail to give an identifiable record upon a photograph which portrays its subject from a single position and with a single direction of the illumination.

Where, then, the photographs give positive evidence, they must be preferred to Herzfeld's chart and transcription; but where the photographs fail to show as legible characters or strokes which Herzfeld records as visible to his ocular scrutiny, the preference must be given to Herzfeld's testimony.

The OP text of DNb now follows, as revised in accordance with the added help of the Schmidt photographs. The symbols °, ∞, ∞°, are used to indicate gaps on the rock surface adequate for one, two, three characters, respectively, where unusual roughness or crevices made the engraving of characters unduly difficult or even impossible; but the spacing of characters is often irregular, and in some instances a place marked by ° in our text may be only a wider separation, not an intentional gap.

TEXT

- 1 бага : vazraka : Auramazdā : hya : adadā : i-
- 2 ma : frašam : tya : vainatai[y] : hya : adadā : ši-
- 3 yātim : martiyahyā : hya : xraθum : ut-
- 4 ā : aruvastam : upariy : Dārayavaum : xšā-
- 5 yaθiyam : nīyasaya : θātiy : Dārayavauš : xšāya-
- 6 °θiya : vašnā : Auramazdāhā : avākaram : a-
- 7 miy : tya : rāstam : dau[št]ā : amiy : miθa : na-
- 8 [i]y : dauštā : amiy : na[imā] : kāma : tya : skauθ-
- 9 iš : tunuvatahyā : rā°diy : miθa : kariyaiš
- 10 : naimā : ava : kāma : tya : t[u]nuvā : skauθaiš : r-
- 11 ādiy : miθa : kariyaiš : tya : rāstam : ava : mām :
- 12 kāma : martiyam : draujanam : naiy : daušt[ā] : am-
- 13 iy : naiy : manauviš : am[iy : ty]āmaiy : [da]rtana-
- 14 yā : bavatiy : daršam : dārayāmiy : manahā :
- 15 uvaipašiyahyā : darša[m :] xšayamna : a[m]iy [:]
- 16 martiya : hya : hataxšataiy [:] anudim [: ha]karta°-
- 17 hyā : avaθādim : paribarāmiy : hya : [v]°-
- 18 ināθayatiy : anudim : vinastah[yā : ava]θ-
- 19 ā : parsāmiy : naimā : kāma : tya : mar°tiya
- 20 : vināθayaiš : naipatimā : ava : kāma : yadi-
- 21 y : vināθayaiš : naiy : fraθiyaiš : martiya :

¹ [Photographs of all Naqš-i-Rustam inscriptions will be published by the Oriental Institute in Schmidt's

final report on the Persepolis Expedition, now in preparation.—G.G.C.]

- 22 tya : pat^oiy : martiyam : θātiy : ava : mām :
 23 naiy : varnavataiy : yātā : uradanām : hadu-
 24 gām : āxšnautiy : martiya : tya : kunau-
 25 tiy : yad^oivā : ābaratiy : anuv : tauman-
 26 išaiy : xšnuta : ° amiy : utā : mām : vas-
 27 iy : kāma : utā : u[xšna]uš : amiy : avākaram-
 28 camaiy : ° ušiy : u[t]ā : framānā : yaθāmai-
 29 y : tya : kartam : vaināhy : [ya]divā : āxšnav-
 30 āhy : utā : viθ^oi^oyā : ° utā : spāθma-
 31 i^oda^oyā : aitamai^oy^o : °° aruvastam :
 32 upariy : manašc[ā] : °° [uš]icā : ima : patimai-
 33 y : aruvastam : t^oya^omai : tanūš : tāvaya-
 34 t[i]^oy : hamaranakara : a[m]^oiy : ušhamaranakara : hakara-
 35 mci^oy : ušiyā : gā[θa]^ovā : vainātaiy : yaciy :
 36 va[i]nāmiy : hamiçiya^om : yaciy : naiy : vainā-
 37 miy : utā : ušibiya : utā : framānāyā
 38 : a^odakaiy : fratarā : maniyaiy : aruvāyā : ya-
 39 di^oy : vaināmiy : hamiçiyam : yaθā : yadiy :
 40 nai^oy : vaināmiy : yāumainiš : amiy : u-
 41 tā ° : dastaibiyā : utā : pādaibiyā : asabā-
 42 ra [:] ° uvāsabāra : amiy : θanuvaniya : uθa-
 43 n^ouvaniya : amiy : utā : pastiš : utā
 44 : asabāra : āršt[i]ka : amiy : uvārštika :
 45 utā : pastiš : utā : asabāra : utā : ūvnarā
 46 : tyā : Auramazdā : [upa]r[iy : mā]m : nīyasaya : utā-
 47 diš : atāvayam : barta[nai]y : vašnā : Auramazdāh-
 48 ā : tyamaiy : kartam : imaiḃiš : ūvnaraiḃiš : aku-
 49 navam : tyā : mām : Auramazdā : upariy : nīyāsaya
 50 : mari^okā : daršam : azdā : kušuvā : [ciy]ākaram
 51 : am[i]y : ciyākaramcamaiy : ūv[narā : c]iyākara-
 52 mcamaiy : pariyanam : mātaiy : + + + + + tam :
 53 θadaya ° : tyataiy : gaušāyā : [xšnutam] : avaš-
 54 ciy : ° āxšnudiy : tya : parta[mtaiy : as]ti-
 55 y : mari^okā : mātaiy : avaš[ciy :] + + + + + ?ta-
 56 [m] : kuna^ovātaiy : tya : [manā : kartam : as]tiy
 57 : avašciy : dīdiy : yaciy [: nipištam] : mā :
 58 [ta]iy : [d]ātā : + + + + + : mā [:] + + + + + ātiy-
 59 ā : ayāu(ma)iniš : bavātiy [: marikā : xšāya]θiya
 60 : mā : raxθatuv : + + + + + + + + + + + ina :

TRANSLATION

1-5: A great god is Ahuramazda, who created this excellent work which is seen, who created happiness for man, who bestowed wisdom and activity upon Darius the king.

5-11: Says Darius the king: By the favor of Ahuramazda I am of such a sort that I am a friend to right, I am not a friend to wrong; it is not my desire that the weak man should have wrong done to him by the mighty; nor is that my desire,

that the mighty man should have wrong done to him by the weak.

11-15: What is right, that is my desire. I am not a friend to the man who is a Lie-follower. I am not hot-tempered. What things develop in my anger, I hold firmly under control by my will-power. I am firmly ruling over my own (impulses).

16-21: The man who co-operates, him according to his co-operative action, thus him do I reward. Who does harm, him according to the damage thus I punish. It is not my desire that a man should do harm; nor indeed is that my desire, if he should do harm, he should not be punished.

21-24: What a man says against a man, that does not convince me, until he satisfies the Ordinance of Good Regulations.

24-27: What a man does or performs (for others) according to his (natural) powers, (therewith) I am satisfied, and my pleasure is abundant, and I am well satisfied.

27-32: Of such a sort is my understanding and my command: when what has been done by me thou shalt see or hear of, both in the city and in the war-camp, this is my activity over my will-power and my understanding.

32-40: This indeed is my activity: as far as my body has the strength, as a battle-fighter I am a good battle-fighter. Once let there be seen with understanding in the place (of battle), what I see (to be) rebellious, what I see (to be) not (rebellious), both with understanding and with command then I am first to think with action, when I see a rebel as well as when I see a not-(rebel).

40-45: Trained am I both with hands and with feet. As a horseman I am a good horseman. As a bowman I am a good bowman both afoot and on horseback. As a spearman I am a good spearman both afoot and on horseback.

45-49: And the (physical) skillfulnesses

which Ahuramazda has bestowed upon me and I have had the strength to use them—by the favor of Ahuramazda, what has been done by me I have done with those skillfulnesses which Ahuramazda has bestowed upon me.

[The space of one line is here left vacant, to mark the break in the subject matter.]

50-55: O menial, vigorously make thou known of what sort I am, and of what sort my skillfulnesses, and of what sort my superiority. Let that not seem [trifling] to thee, which has been heard by thy ears. That do thou hear, which is communicated to thee.

55-60: O menial, let not that be made [trifling] to thee, which has been done by me. That do thou behold, which [has been inscribed]. Let not the laws [be disobeyed] by thee. Let not [anyone] be untrained [in obedience]. [O menial], let not the king (feel himself obliged to) inflict punishment (?) [for wrongdoing (?) on the dwellers (in the land) (?)].

NOTES

Examination of the Schmidt photographs gives occasion for the following notes on the text, as compared with my previous version; some exegetical notes also are included at the proper places.

3: Only slight traces are visible of the first character of *xraθum*, but those are not incompatible with *x^a*.

4: On etymology and meaning of *aru-vastam*, see Excursus III.

9: The photo seems to show *rā^odiy*, the gap being at a fissure in the rock, and the next two signs being only faintly visible.

13-15: For text and interpretation, see Excursus I.

16 end: The photo seems to show *+k^ar^ar^a+;* but the second *r^a* may really be the beginning of a *t^a* (as Cameron points out), for the middle of the three short horizontals of *r^a* may be illusory.

The most probable reading is therefore [ha]karta-, with a blank space at the end of the line, where there is a deep hole in the rock.

17 end: After the lost *v*ⁱ there was a blank unengraved space, in the same area of damage to the surface seen at the end of line 16.

19: The *a* of *naimā* is clear in the photo; Herzfeld had it in his transliteration, but not on his chart.

19 end: The final word is *mar^otiya*, with very slight traces of *t*^a and *i*. As Cameron notes, Herzfeld's *m*^a at the end of the line is an error; the *y*^a at the end is clearly visible in the photo. The word is therefore not object, but subject of the verb in 20, which changes the translation but not the meaning of the sentence.

22: All the characters of *martiyam* are at least partly visible.

23: In *varnavataiy* the *v*^a and *r*^a are rather widely spaced, but are not quite far enough apart to justify the marking of a blank space.

24: In *martiya* the *m*^a seems to be miswritten *t*^a by the addition of a second short horizontal before the verticals.

25: As Cameron notes, there is a blank space in *yad^oivā*.

26: The divider immediately follows *xšnuta*, but between the divider and *amiy* there is space for two characters. Cameron sees here some traces of two unsuccessful attempts to inscribe the *a* of *amiy*; but these seeming marks may be only the roughness of a surface which defied utilization.

28: The photo shows *u^ošaiy^a*, though the traces of *u* and *š*^a are hard to see. For length of *i* in normalized *ušiy*, cf. *Lang.*, XIX, 224-25.

28: As Cameron notes, the gap in *u[t]ā* is abnormally great for the single character; but the characters of this inscription are often widely spaced, and if the *t*^a

stands in the middle of the gap there would not be blank space for another character on either side.

30: Read *viθ^oi^oyā* : *utā*, with double blank before *utā*, as noted by Cameron.

31: This line seems to have *aitamar^oy^o* : *aruvastam* : , without Herzfeld's restored *didiy* 'see!' in the gap, despite Akk. *a-mu-ur* at the corresponding place. The gap in the OP could hold *didiy* only with extreme crowding (so both Cameron and I, from the Schmidt photo), and the characters in this line are elsewhere loosely spaced. Further, a very distinct divider stands almost in the middle of the gap; and this part of the line stands between unengraved portions of the preceding and the following lines, the area of bad surface apparently extending over all three lines.

32: In *upariy* the traces of *r*^a are very slight, but are adequate.

32: In [*uš*]icā the *i* is clearly visible (so Schmidt photo as well as Herzfeld; my failure to indicate this in my previous article is an error). The rock is smooth and unmarked where the *uš* would have stood; whether the two characters were omitted in the engraving (as seems likely to Cameron), or have entirely weathered off, cannot be decided.

33-40: On the interpretation of these lines, in comparison with the Akkadian text, see Excursus II.

35: There is a blank space in *gā[θa]^ovā*; the *θ*^a is entirely lost. Of the *v*^a I seem to see faint traces, but Cameron regards the character as entirely lost.

35: For *vainātaiy*, Cameron finds that the photo shows rather *h^ain^at^aaiy^a*, which, if a correct reading, is an incorrect engraving. The Schmidt photo does in fact seem to favor *h*^a for the first character; but Herzfeld's chart indicates that he saw *v*^a quite distinctly, and the traces in the photo are of the vague illusory kind. The fourth character, however, is in the photo

quite distinctly t^a (hardly m^a), and we must assume that the engraver inscribed t^a-t^a for $a-t^a$, an easy error of substitution.

36: Read *hamiḡiya*^{om}, with very slight traces of the last two characters.

38: Weissbach, KIA 94, reads *an^uw^a-aθ^aa* from Stolze's photograph, and regards the second character as dubious; Herzfeld reads *af^uw^aay^aa* and emends to *ar^uw^aaθ^aa* = *aruwāθā*, which I formerly accepted. The Schmidt photo, as read both by Cameron and by me, confirms Herzfeld's *af^uw^aay^aa* (correction of f^a to r^u by inserting a short horizontal after the vertical, and of y^a to $θ^a$ by adding a vertical hasta, is not to be credited, despite slight illusory marks on the photo). Emend the second character to r^u (with Herzfeld) and read *ar^uw^aay^aa* = *aruwāyā*; for interpretation, see Excursus III.

41: Some traces of the a of *tā* which begins the line are visible in the photo.

43: Read *n^owaniya*, with an unengraved space after the first character.

45: For the interpretation of *ūmarā*, see Excursus III.

49: The photo shows quite clearly the divider in *navam* : *tyā*.

49-50: Between these two lines there is vacant space adequate for one line of text; this marks the break in the subject matter. According to the photo, the divider is definitely not at the end of 49, but seems to be visible at the beginning of 50.

50 and 51-52: In both instances the photo confirms *c^aiy^aak^aaram^am^ac^aiy^a* (as read by Herzfeld), for *-m^ac^am^aiy^a*, = *c^aiyā-karamcamaiy* (transposition of two characters, cf. *Lang.*, XV, 173).

54: Read *ciy* : ° *āšnudi*, the gap being at a considerable cleft in the rock.

55-60: I have attempted some further restorations here, which are not inconsistent with the scanty remains of the Akkadian.

55: Read *marī^okā*.

55 end: There are indications of at least five strokes in the photo (Cameron sees two slight additional strokes in the enlarged photo); but they do not fit Herzfeld's *d^aš^a* (to which he attached question marks), nor do they fit my own *uš^a* read from Herzfeld's chart. It seems to me now that the word is the same as that which ends line 52, the lateral space being the same, and that 55 ends with t^a preceded by two (four, according to Cameron) uninterpretable strokes, while the m^a ending the word stood at the beginning of 56, where there is space for it before the (legible) divider. Note, however, that Cameron does not agree with this interpretation of the end of 55.

56: Read *kuna^ovātaiy*.

57: The gap may be filled by *nipištam* 'is inscribed', or possibly by *akunavam* 'I have made or done'.

58: The photo seems to show *+at^aa* rather than *k^ar^at^a* (which I read from Herzfeld's chart); restore perhaps *[d]ātā*.

59: In *ayāumainiš* the character m^a has been omitted in the engraving (Cameron thinks rather that the second a or the u has been omitted); all other characters are clear in the photo, as is also the a of *bavātiy*, which Herzfeld gave in his transliteration but omitted on his chart. My restoration of the final words as *[marīkā : xšāya]θi^a*, after the Akkadian, is supported by some very fragmentary traces of characters on the photo.

60: The line ends not in *iš^a*, but in *in^a* : , according to the photo; I take *-ina* as the termination of an accusative plural of an *-in-* stem. The word-divider at the end is very clear. (Cameron expresses doubts as to these readings.)

EXCURSUS I: ON LINES 13-15

As a basis for the present discussion and revision, I first present the text and translation as given in my previous article:

- 13 *iy : naiy : manauviš : am[iy : ty]āmaiγ :
 ††tana-*
 14 *yā : bavatiγ : daršam : dārayāmiγ : ma-
 nahā :*
 15 *uwaipašiyahyā : darša[m :] xšayamna :
 a[m]iy [-]*

"... I am not revengeful. What things are ... to me, those I hold firmly under control. I am firmly ruling over my own temperament."

This text is identical with Herzfeld's (the translation is somewhat different!); his discussion of and decision for the reading *manahā*, in which the character *h*^a is slightly uncertain, are given in *ApI*, pages 240-42. He pronounces *manahā* to be "regelmässiger genitiv eines -ah- stammes," though admittedly the first recorded example of the type; since OP **manahā* would properly correspond to Skt. gen. *manasas*, he seeks to justify the long final vowel of *manahā* on the ground that the writing "entspricht den drei üblicheren der drei formen für den gen. der -āh- stämme: -āhā." Now the sole examples of -āh- stem genitives in OP are those of the divine name Ahuramazda: *Auramazd-āha -āhā -āhā*.² Occurrences:

	-āhā	-āhā	-āhā
In inscriptions of Darius...	40	12	0
In inscriptions of Xerxes...	6	2	6

This definitely controverts Herzfeld's dictum as to which forms are the commoner. Further, the shift from -āhā to -āhā (for which -āhā is only an error of writing) is a partial assimilation to the declension of -ā- stems:

	-ā- Stems
Nom. sg.	Skt. -ā OP -ā
Acc. sg.	Skt. -ām OP -ām
Gen. sg.	Skt. -āyās OP -āyā

One can hardly imagine this paradigm as affecting a neuter -as- stem (OP -ah-); for the three cases, note Skt. -as -as -asas, OP -a -a -aha. Further, an acc. *nāham* to *nāh*- 'nose' is actually found in OP, showing that no shift took place in this case-form of this word (other forms of OP *nāh*- do not occur in the extant texts). Finally, we have two genitives of consonantal stems in OP, both ending in -ā: *piça* (from **pitras*) to nom. *pilā* 'father', and *θarda* to stem *θard*- 'year', both keeping the short vowel.

There is, then, no basis for an analogical extension of -ā as genitive ending of neuter -s- stems in OP; and *manahā* is not genitive as taken by Herzfeld, but instrumental, = Skt. *manasā*. Then the unmistakable genitive *uwaipašiyahyā* is not an adjectival modifier of *manahā*, as Herzfeld takes it, but a substantival genitive depending upon *manahā* or upon the participle *xšayamna* 'ruling'. In the Avesta the verb *xšā(y)*- 'be able, be powerful, rule' governs the genitive; in the OP passage we therefore expect *xšayamna* 'ruling' to govern the gen. *uwaipašiyahyā* rather than the instr. *manahā*. Another feature confirms this: if *xšayamna* governs the instrumental *manahā*, then *uwaipašiyahyā* must be a genitive depending upon *manahā* (as indeed I took it in my previous article). But there is in the OP texts no genitive in genitive function³ which follows the noun or adjective on which it depends, apart from a few technical formulas of government and reli-

	-ās- Stems (OP -āh-)
Skt. -ās	OP -ā
Skt. -āsam	OP -ām for *-āham
Skt. -āsas	OP -āhā for -āha

² The name of Xerxes, nom. *Xšayāršā*, acc. -ām, gen. -āha (-ahyā under Artaxerxes I and later), seems to be similar, but never has gen. -āhā; also, it is an -an- stem, cf. Av. *aršan*- 'male' for second element.

³ But the genitive form in dative function may follow; thus I take *Kabūjiyahyā* as dative in use rather than genitive, in DB 1.30 *hamātā hamapitā Kabūjiyahyā* 'having the same mother and father along with Cambyse's'.

gion,⁴ and a few pronouns whose position is fixed by the rules of enclisis or the need of clarity.⁵ We must therefore take *wai-pašiyahyā* as depending directly upon *xšayamna*, and regard *manahā* as an instrumental in one of the normal uses of that case. But this does not determine whether *manahā* is part of the following clause, or belongs with the preceding. To form an opinion on this we must make a fresh start from another point.

The relative clause of lines 13-14 obviously holds, in the mutilated word, either a plural adjective or a locative singular noun; the meaning is either "what things are . . . to me" or "what things are in my . . .". The mutilated word begins with two lost characters, the second of which had as its final stroke a vertical hasta; its fourth character seems to have been *n*^a, though the traces are faint (possibly *y*^a,⁶ as Cameron suggests, but not *i*, which is Herzfeld's alternative, *ApI*, p. 333). For the second character the possibilities are *x*^a, *t*^a, *θ*^a, *b*^a, *m*^a, *r*^a, *l*^a, *z*^a (those with inherent *i* or *u* are out of the question, since the next character is a consonant): with some hesitation I propose [*dar*]tanayā,⁷ loc. of *dartana*- 'anger', an

⁴ These are *xšāyathiya xšāyathiyanām* 'king of kings', *xšāyathiya dahyūnām* 'king of countries', *hya maθišta bagānām* 'the greatest of the gods', *vašnā Auramazdāha* 'by the favor of Ahuramazda'. These may represent a Median usage, established in the official language before the Median line was replaced by the specifically Persian line in the person of Darius.

⁵ These are DNb 25-26 *anuv tarumanišaiy* (= -iš-šaiy) 'according to his powers'; A³Ša 3 *apan^ayāka-ma* (for -mai^y) 'my great-great-grandfather', 4 [*n^ay*]ākama (= -kam-mai^y) 'my grandfather'; and three heavily restored passages, DB 5.27 [*maθ*]išta[šām :] S[*ku*]za : nāma, DSf 20 [*ava* : dastāmai^y : naibam : ucāram], DSf 23 [*hačēi*]y : dāradaša [: arjanam-šai^y : abariya]. In the second it would be possible to restore *ava-mai^y : dastā*, but the available space seems to render any similar transposition impossible in the other two.

⁶ If the character is really *y*^a, then the text could be restored [*d^ar^a*]*t^ay^a* || *y^a* = *dartayā*, with dittography of the *y^a*; loc. of neuter ptc. as subst. 'anger', = Av. *zarāta*- 'erzürnt'.

⁷ Or possibly [*zar*]tanayā, with Median *z* from IE *ǵh* (as also from *ǵ*), as in a number of OP words (Meillet-Benveniste, *Gram. du Vieux-Perse*², §9); the *z*-

extension of OP **darta-* = Av. *zarāta*- 'erzürnt,' ptc. to the Av. root *zar-* 'erzürnen', PIE **ǵher-* or **ǵhel-*, seen also in Skt. *hr-ṛtē* 'is angry', with the secondary suffix *-na*.⁸ The clause means then approximately "what things are or develop in my anger", with the continuation "(these) I hold firmly under control". The harmony of this with the Akkadian version, which is indeed the basis for the proposed restoration, will be seen later.

After I had written the preceding paragraph, Cameron examined the enlarged photograph and in it found the lowest of the three short horizontals which, with the following vertical hasta, make up the character *r*^a. For this reason I feel justified now in transcribing not [*dar*]tana- but [*dar*]tana-.

To return now to *manahā*: whether it goes with the preceding or with the following, it is obviously used in a good sense, despite *manauviš* 'vengeful' (or the like). Etymologically, OP *manah-*, Av. *manah-*, Skt. *manas-* all mean 'thought, thinking power'. Bartholomae, *Altiran. Wörterb.*, col. 1126, defines Av. *manah-* as "der innere Sinn, Geist; Denken, Gedanke; Streben, Begierde; Plan, Anschlag." The meaning seems to indicate that *manahā* goes with the preceding, and to be, in effect: "what I actually allow myself to say in anger, I keep under control by my thoughtful will-power; I do not in haste say that which in more thoughtful moments I may regret to have said." To this there is added the summarizing clause, "I am firmly ruling over that which is my

would provide distinction from derivatives of OP *dar-* (IE **dher-*) 'hold firm'.

⁸ I cannot give a precise parallel to the combination of participle in *-ta-* + suffix *-na-*, but it does not seem to me an improbable combination. Av. *šyaoθna-* 'deed', Skt. *cyautna-* 'undertaking,' to the Aryan root **ciav-*, approximates this, but has *-t-na-* and not *ta-na-* (it is impossible to normalize OP *dartnayā*, since *tn* cannot stand unchanged in Iranian: Aryan *-tn-* became Iranian *-θn-*, Av. *θn-*, OP *-šn-*).

own," = "I am in complete control of myself and of what I say."

It remains to reconcile this meaning of *manah-* with the obviously bad meaning of the derivative *manawiš*, 'vengeful' or the like. Herzfeld, *ApI*, page 242, takes *manawiš* as an adjective in *-i-*, derived from the stem *mana-* with a *u*-extension, and having the meaning 'irae memor, iracundus', which he finds justified by the Akk. *ul man-ma ša igāga anāku* 'ich bin nicht einer der *igāga* zürnt, wütet'. On page 241 he takes *manah-* as the equivalent of Gk. *μένος* 'energie, wut', and not in the good meaning which pertains to Avestan *manah-*. *Manawiš* goes back, he says, to the same root as *manah-*, but is not directly derived from it, though the meanings agree.

On the other hand, I take *manawiš* to be for *manah-* + the adj. suffix *-vin-*; this suffix is in Skt. in most instances added to stems in *-as-* (Whitney, *Skt. Gram.*³ § 1232), though Skt. **manas-vin-* does not actually occur: cf. *Lang.*, XV, 170. The difference between *manawiš* 'vengeful' or the like, and *manah-* 'willpower', is paralleled by English *wilful* from *will*, *temperamental* from *temperament*, *sensual* as adjective to *senses*, *temper* as contrasted with *temperate*. I assume the same pejorative development in the OP adjective *manawiš*, which I take to mean 'wilful', or in the present passage more precisely 'hot-tempered'.

The Akkadian version of this passage, in Herzfeld's transliteration (*ApI*, page 6), is as follows, which I here divide into three sentences for ease of equation with the OP:

- (1) *ul man-ma ša i-ga-a-ga ana-ku*
- (2) *u ki-i a-ta-ag-ga i-na lib-bi-ja u-kal-la*
- (3) *ina muḫḫi lib-bi-ja ra-ba-a-ka*

Herzfeld's translation of the composite OP-Akk. text, with OP *manahā* going with the following, is:

- (1) "Ich bin nicht rachsüchtig:
- (2) die mir [akk.: zornig?] werden behalte ich fest,
- (3) und meiner eignen leidenschaften bin ich streng herr."

Cameron's translation of the Akkadian alone, communicated to me by letter, is:

- (1) "Not one who (easily) becomes angered am I,
- (2) but (or and) when I do become angry I hold (it) back in my heart;
- (3) (for) upon (= over) my heart I am master."

Both Cameron and my colleague Z. S. Harris, whom I consulted long since on the point, take *i-na lib-bi-ja* of Part 2 as representing OP *manahā*, which therefore belongs to Part 2. The corollary is that *ina muḫḫi lib-bi-ja* corresponds to OP *waipašiyahyā*, and to nothing more.

The Akkadian version therefore supports my restoration [*da*]rtanayā and its translation, and the taking of *manahā* with the preceding: "I am not hot-tempered. What things develop in my anger, I hold firmly under control by my willpower. I am firmly ruling over my own (impulses)."

EXCURSUS II: ON LINES 33-40

To lines 33-40 of the OP there correspond lines 21-24 of the Akkadian version, in each of which there is an illegible gap at about the three-quarters mark, capable of holding from two to five characters. It was clear to Herzfeld, when he made a synoptic text of the OP and the Akk., that some of the OP words and phrases were omitted in the Akk. version, and he divided the omissions into two passages, without giving any motivation for the error. But Cameron, when he compared the two versions, arrived at a different arrangement, which through his kindness I am privileged to present.

In the following, the OP text is divided

into nine parts, labeled A to I, each accompanied by Herzfeld's parallel Akk. text and his composite translation of the OP-Akk. texts (Akk-H), and then by Cameron's arrangement of the Akk. text and his literal translation of the Akk. only (Akk-C).

- A: OP *tyamañy tanūš tāvayatiy*
 Akk-H []-na ra-ma-ni-ja ga-aš-ra-ak
 So sehr es mein Leib es vermag,
 Akk-C [i]-na ra-ma-ni-ja ga-aš-ra-ak
 In my own body I am strong;
- B: OP *hamaranakara amñy ušhamaranakara*
 Akk-H e-piš ta-ḥa-zi ma-di-iš a-na-k[u]
ina qab?-la ta-ḥa-zi
 bin ich als kriegler ein guter kriegler.
 Akk-C e-piš ta-ḥa-zi ma-di-iš a-na-ku
 a maker of battle very greatly am I.
- C: OP *hakaramciy ušñyā gāḥarā vainātaiy*
 Akk-H iš?-tim? iḡi-gál-na-a = uznā-a
i-na mi-l-ki dīb-bi-ja
 Wenn es meinem verstand zweifelhaft
 erscheine,
 Akk-C [. . .] *ina qab -la ta-ḥa-zi*
 In the midst of battle,
- D: OP *yaciñy vaināmiñy hamiciñyam*
 Akk-H [omission in Akk. text]
 wen ich als feind betrachten,
 Akk-C [omitted in Akk.]
- E: OP *yaciñy naiñy vaināmiñy*
 Akk-H [q]a?-at ra-ma-ni-ja
 wen ich (als) nicht-(feind) betrachten
 soll,
 Akk-C [omitted in Akk.]
- F: OP *ulā ušñbiyā ulā framānāyā*
 Akk-H i-na ^{GIŠ} +-ma ba-na-a
 "Vor verstand und urteil"
 Akk-C iš-[tum?] uznā i-na mi-l-ki dīb-bi- aḡ
 out of (my) understanding, (and) in
 (= with) the council of my word
 (= command)
- G: OP *adakañy fratara maniñy aruwāyā*
 Akk-H [omission in Akk. text, to
 alsdann "zuerst" denke ich "ist die
 gūte",

Akk-C +-+--at ra-ma-ni-ja i-na [ūmi-
 šu]-ma ba-na-a
 [the deeds (?) of myself at that time are
 fashioned,

- H: OP *yadiñy vaināmiñy hamiciñyam*
 Akk-H here] ma-am-ma ni-ik-ri
 auch wenn ich als feind betrachte,
 Akk-C ma-am-ma ni-ik-ri
 (when) anyone hostile
- I: OP *yabā yadiñy naiñy vaināmiñy*
 Akk-H + + + + u]-ta-am-ma-ri
 als ob ich (als) nicht-(feind) betrachte.
 Akk-C 'ki' [la ni-ik-ri] u-ta-am-ma-
 as not hostile I see.

Through this passage the OP text is quite certain, with the exception of the word ending Part G, which Herzfeld emends to *aruwāḥā* and I to *aruwāyā* (see critical note, page 44). To Herzfeld's interpretation I would make several objections: he appears to omit entirely Akk. *ina qab-la ta-ḥa-zi* in B, unless he takes it as a virtual repetition of the preceding (but the Akk. does not have the repetitions which are a feature of the OP in this clause and elsewhere); his "zweifelhaft" in the translation of C seems to be unjustified; his masculine "wen" in D and E corresponds to neuter *yaciñy* in the OP; he takes his *aruwāḥā* (his normalization, 'rvāḥā) as nom. sg. fem., to which *fratara* is predicate—but *fratara* is nom. sg. mase. He further assumes two omissions in the Akk. text, the first being that of Part D and the second being that of G and the first word of H. Cameron's equation of the two versions is much more reasonable, since he assumes only one omission in the Akkadian, covering D and E; and the omission is motivated by the fact that D and E are virtually repeated by H and I. In fact, if the OP text of D and E were omitted, we should not be prevented from arriving at the proper interpretation of the whole passage. Cameron sets in C, F, G the Akk. text which Herzfeld sets in B

(end only), C, E-F respectively; he makes the obviously correct restoration in the gap in the Akk. of Part I. Further, he notes that in A there is no space for a subordinating word corresponding to OP *tya*, between *i-na* and the ¹⁰*it-ba-ru-ta*-[a which ends the preceding sentence, and that in the Akk. there is no subordinating word corresponding to the OP *yadiy* at the beginning of H; and he offers a partial restoration of the Akk. of G.

I have already remarked that Herzfeld's interpretation of much of the passage is quite unsatisfactory (he had, of course, the disadvantage of being the first to undertake here any complete interpretation at all). The most important point at which Cameron's synoptic text needs detailed discussion, is in Part C, where Akk. *ina qab-la ta-ḥa-zi* 'in the midst of battle' becomes the translation of OP *gāθavā* 'in (its) place'. Herzfeld read *g^aa[θ^uw^a]a* = *gā[θuw]ā*, which he took (ApI, page 179) as loc. dual, 'an zwei plätzen, = zweifelhaft' (!), disregarding his own equation of the word with Akk. *i-na mīl-ki dīb-bi-ia* 'in the advice (or, council) of my word'. Now OP *gāθu-*, with *θ* generalized from case-forms in which consonantal *v* immediately followed, is the exact etymological equivalent of Avestan *gātu-* (Bartholomae, *AiW*, col. 517), Skt. *gātu-*. Skt. *gātu-* means 'moving, moving-place, place, abode'. Avestan shows only the developed meanings: 'Ort, Platz, Stätte, Stelle; festbestimmter, vorge-schriebener, richtiger Ort, usw.; Ort des Gerichts, Gerichtshof, Forum; Stätte zum Ruhen, Liegen, Sitzen, sva. Lager-statt, Bett, Divan, Sessel, Thron'. In giving these meanings, Bartholomae, I think, goes into rather too much detail; the word itself means hardly more than 'place, suitable or appropriate place (as indicated by the context)'. Notably, the meaning 'Ort des Gerichts, Gerichtshof, Forum' occurs

only in one passage (*Frahang* 4 c; in part repeated in 4 d), 'whoso, to a man contesting at law, shall not appoint (or communicate) the *place* and the test and the time'; this Avestan passage and the Akk. *i-na mīl-ki dīb-bi-ia* caused me (in *Lang.*, XV, 168) to translate OP *gāθavā* in our passage, by 'council'. But OP *gāθu-*, like its Avestan equivalent, means only 'place', with such specializations as the context may suggest; an English possessive always makes this clear (OP never has a possessive adjective and has a genitive only in XPf 35, where the meaning requires it):

DB 1.62-63, 66, 69: 'I re-established (*avāstāyam*) it (the kingship) in its place . . . the people in their place . . . our royal house in its place.'

DNa 36: ' . . . (this earth in commotion) . . . I set it down (*nīyašādayam*) in its place.'

XPh 34: 'that province (which was in commotion) I smote, and I set it down (*nīšādayam*) in its place.'

DSe 37, 43-45: 'I brought it about (*akunavam*) that . . . each one (of those previously fighting) is in his place . . . much which previously had been put (*kartam*) not in (= out of) its place, that I put (*akunavam*) in its place.'

In the remaining passages, apart from the one which we are discussing in DNb 35, *gāθu-* 'place' means 'throne':

DNa 41-42: 'See the sculptures (of those) who bear my place (= throne).'

XPf 33-36: 'When my father Darius went away from his place (= throne, i.e., died), by the favor of Ahuramazda I became king in the place (= on the throne) of my father.'

In DNb 35, our Part C, as well as in the other passages, the meaning should be determined by the context. This context has to do with Darius as a fighter in battle, seeing and discriminating between the rebel (*hamīciya-*) and the nonrebel. Thus we also reach, by consideration of

the OP alone, Cameron's conclusion that *ina qab-la ta-ha-zi* 'in midst of battle' represents *gāθavā* 'in the place (of battle)', which refers back to Darius' assertion, 'As a battle-fighter I am a good battle-fighter'. The sentence accordingly means: 'Once let there be seen with understanding in the place (of battle) what I see (to be) rebellious, what I see (to be) not-(rebellious); with understanding and with command then I am first to think with action, when I see a rebel as well as when I see a non-(rebel).' Whether we say 'rebellious' or 'hostile', and 'rebel' or 'enemy', is of little consequence; for to Darius the ideas were synonymous: to him who had received the rulership of the entire world by the favor of Ahuramazda, any hostility was an act of rebellion, and any enemy was a rebel.

At the end of the Akkadian of G, as arranged by Cameron, *banū* may have the more usual meaning 'are fashioned' rather than 'are good'. It is irrelevant here whether there are two distinct roots *banū*, or only one root with two meanings (cf. Poebel, *ZfA*, XXXVIII [1929], 91, n. 1).

One more point here: In 'I am first to think with action' the OP uses the comparative for 'first', and more precisely, but less literally it means 'I turn thought into action before the other man, be he enemy or be he friend, can turn his thought into action.' For *fratara maniyaiy* is merely the idiom seen in Latin *prīmus vēnī* 'I came first, was the first to come': here *prior cōgitō* 'I am the prior to think.' On the meaning of *aruvāyā*, I refer to Excursus III.

EXCURSUS III

ON *aruvastam*, *aruvāyā*, *ūvnarā*

In DNB 4, *aruvastam* was read long ago by Rawlinson, as he records in *JRAS*, X (1847), 312-13, from Westergaard's manuscript copy, and again by Weissbach (cf. *KIA*, page 92) from photographs: *aruvastam*

in 33 was also reasonably clear to Weissbach, and *anuvāthā* or *afauvāthā* in 38. The reading of *aruvastam* in 31, of *ūvnarā* in 45 and of the mutilated *ūv[narāibiš]* 48 and *ūv[narā]* 51 had to wait for Herzfeld's re-examination (published in *ApI*); some further improvements are, I hope, to be found in the present reading of Schmidt's photographs, where I seem to see traces of some additional characters, and to be able to justify *aruvāyā* (rather than Herzfeld's emendation to *aruvāthā*).

The late A. V. W. Jackson, in *JAOS*, XXXVIII (1918), 123, noted that previous scholars had suggested an approximate meaning of 'sovereignty' for *aruvastam*, and himself proposed to derive it as a neuter abstract formed with the suffix *-ta-* to the stem seen in Avestan *aurvant-* 'lordly, princely, sovereign' and in Skt. *arvant-* (such derivatives are formed upon the stem in *-vat-*, containing the weak grade of the suffix); cf. Av. *ašavasta-* 'quality of being righteous', to *ašavant-* 'righteous'.

To Jackson's etymology no exception can be taken, so far as derivation and phonetics are concerned; but Av. *aurvant-* (in which the *u* is only a labialization caused by the *v* after the *r*, so that an earlier *arvant-* is assured) is defined by Bartholomae, *AiW*, col. 200, as 'schnell; tapfer, Held; . . . von Haoma; . . . bes. vom Ross; Renner', and hardly furnishes the basis for the meaning 'sovereignty', which Jackson accepts. Skt. *arvant-* is defined by Monier-Williams as 'running, hasting; courser, horse; the driver of a horse; a part of a sacrificial action', all these meanings in the Rigveda, with other meanings in later literature. Quite clearly *arvant-* is a primary adjective formed upon the verbal root Skt. *r-* 'go, move', Av. and OP *ar-* of the same meaning, seen also in Latin *orior* 'arise'; the primary meaning is 'going, moving, flowing', and the like. For

the abstract *aruvastam*, then, some meaning such as 'activity' seems likely, which pairs off very well with (acc.) *xraθum* 'wisdom' (exact meaning assured by the Akk. equivalent, *ṭē-e-me ḫi-is-sa-tum* 'word or message of wisdom') in line 3.

Now Herzfeld, who (*ApI*, pages 6-7) was the first to read the Akk. text, notes the following correspondences:

OP <i>aruvastam</i> (his <i>ār^uvastam</i>)	= Akk. <i>lu^{it}-ba-ru-tum</i>
OP <i>aruvāyā</i> (his <i>'r^uvāθā</i>)	= Akk. lacking
OP <i>ūvarā</i> (his <i>u^vnarā</i>)	= Akk. <i>lu^{it}-ba-ru-ti</i>

His discussions of the words are in *ApI*, pages 80-86, 293-96, 200-206; he equates *aruvastam* in meaning with Avestan *vohū manō* 'Good Thought', and *uvarā* with Av. *yaorštayō* 'devices, skills'. He sees an obvious etymological association between *aruvastam* and *'r^uvāθā* (his readings and normalizations) and connects them with a conflux of two groups of words found in the Avesta: Gāthic **rvāta-*, cf. Skt. *vratā-* 'bestimmung, gebot', etc., and Gāthic **rvāθā-* 'Liebe', Later Av. **rvaθa-* 'amicus', *a^u-rvaθa-* 'inimicus'—whose radical meanings 'word, rule' and 'will, choice' easily pass over into each other. As between the two, however, the OP words come rather from the second, and mean respectively 'gut-sein' and 'liebe'. In confirmation of this, *aruvastam* is translated into Akk. by *iṭbarūtum* 'friendliness' (Cameron's translation), a derivative of *ibru* 'friend'.

Against Herzfeld's views there is the serious objection that the Avestan words beginning with *urū-* and *urv-* come from earlier forms with *ru-* or *rw-*, *sru-* or *sruv-*, and *vr-* metathesized to *rv-* (whence *urv-*; a vowel always follows). There is no evidence that any of these initials would give in OP an initial *a-r^u-u-v^a-*, nor that in such a case the initial *a* would stand for the long vowel in the one and for a mere glottal catch (Herzfeld's ') in the other. If

Herzfeld's etymology is right, we should expect *r^u-u-v^a-*, in which the *u* would be syllabic and not merely graphic, as Herzfeld takes it. Further (henceforth I resume my own system of normalization), the medial vowel in the Avestan word for 'friendly' is always short, not long as in OP *aruvāθā*. But there remains the difficulty of reconciling *aruvastam* 'activity' with Akk. *iṭbarūtum* 'friendliness': my suggestion is that the one means '(friendly) activity' exercised in behalf of one's companions, and the other means '(active) friendship' expressed in deeds. This is in harmony with the total meaning of the passage, neither word expressing with precision the implied limitation to the normal meaning. Finally, I note that Herzfeld says (*ApI*, page 201): "Die inschrift spricht zuerst vom *xraθum utā aruvastam*, nimmt das durch *uši utā fra-mānā* auf . . .'; in his German version he uses 'göttliche weisheit und gut-sein' and 'verstand und urteil'. If they are to be paired off in this fashion, my own 'wisdom and activity' seems to be better resumed by 'understanding and command'; for wisdom, whatever its source or its nature, makes possible the understanding of the situation in hand, and activity is expressed in commands to one's subordinates, as well as in one's own physical actions.

OP *ūvarā* 'skillfulnesses, skills' is a neuter adjective as substantive; it is quite appropriately etymologized as an adjective formation with *-a-* suffix, formed upon **su-* 'good' + **nar-* 'man', with lengthening of the vowel of the initial syllable to show the derivational character: 'having the good qualities (or a good quality) of a man'. In its OP specialized meaning it diverges from the etymologically identical Skt. *sū-nāra-* 'glad, joyous, merry'. Avestan *hunara-* is a substantive glossed by Bartholomae, *AiW*,

col. 1831, with 'Können, Kunst; Kunstfertigkeit, Geschicklichkeit; Tüchtigkeit, persönlicher Wert'; probably neuter, despite Bartholomae's labeling as masculine (inst. -rā, gen. pl. -ranqm, acc. sg. -rēm each occur once, and are ambiguous as to gender). Its derivative *hunaravant-* 'kunstfertig, geschickt, tüchtig' occurs twice, and in both passages is applied to women: Herzfeld (*ApI*, page 201) brands derivation from *hu-nar-* 'good-man-' as a folk-etymology only, mainly because *hunaravant-* is applied to women only whereas **nar-* means a male human being. He seeks to develop another etymology (*ApI*, page 206), but not convincingly; and his objection to the obvious etymology falls, because the adjective had already acquired its derived meaning before it was applied to women, and at most a mixed metaphor could be alleged.

Of our three words, there remains (Herzfeld's) *aruwāthā*, or as I now read it, *aruwāyā*. The unlikelihood of Herzfeld's connection with Av. *urvaθa-* 'friendly', from the phonetic standpoint, has already been mentioned. Further, granted that *aruvastam* is a derivative of the stem in Av. *aurvant-*, Skt. *arvant-*, and that *aruvastam* and *aruwāthā* are extensions of the same element, the long medial vowel and the aspirated consonant of the suffix in *aruwāthā* are difficult to explain. I therefore prefer to retain the *y^a* which is on the rock, rather than emend the character to *θ^a*; the second character must however be emended to *r^a*. The word is then *aruwāyā*, which I take as instrumental of fem. adjective *aruwā-* as nomen actionis; for Avestan has an adjective *aurva-* 'schnell, tapfer' paralleling *aurvant-*. The difference be-

tween OP *aruvasta-* and OP *aruwā-*, if definable, may have been that the former was the general quality of being *arvant-*, the latter the specific realization of the quality: respectively 'activity' and 'action'. This realization as 'action' is the meaning which is to be understood for *aruwāyā* in the concluding paragraphs of Excursus II.

The picture of Darius as he presents his own qualities now becomes consistent with his own record of his deeds. Darius portrays himself as the exemplar of Persian ideals of conduct, the earthly deputy (DSf 16-18, etc.) of the supreme deity Ahuramazda. Throughout the inscriptions he is the mighty ruler to whom resistance is treason, who puts to death with or without torture those who would set themselves in his place and those who are the prominent followers of such rebel leaders; he also rewards those who are loyal and faithful and perform his commands. He praises the doers of right, the worshipers of Ahuramazda; he condemns the doers of wrong, and those who fail to worship Ahuramazda. In all this there is no mention of the Christian qualities of love, mercy, pity, forgiveness, to be shown toward enemies; it is out of place then to see such virtues in *aruvastam* and in *aruwāthā* or *aruwāyā*, which, Darius says, he thought of more quickly than did the other fellow, as much when he saw an enemy as when he saw a friend. No; Darius did not show 'love' (Herzfeld, *ApI*, page 244, top) to his enemies—had he done so, he could hardly have lived to sit upon the Great King's throne for thirty-six years.

UNIVERSITY OF PENNSYLVANIA

THE description of the building of Solomon's temple provides some of the most difficult Hebrew in the entire Old Testament. This is in large part due to our ignorance of the architectural terms in use by the author but beyond question also to textual corruption, doubtless indicating that our ignorance was shared by many scribes of antiquity. Verse 20 of chapter 7 is one of the most perplexing passages in these two chapters of difficulty. It is commonly believed to be corrupt to the point of unintelligibility. Gressmann, for example, retains only part of verse 19 and omits all of verse 20 with a note, "Der Rest von V. 19 und 20 spotet jeder Erklärung."¹ Kittel attaches 20b to a revised text of a remnant of 18, then retains of 20a in its proper place only the first four Hebrew words.² Burney is more hopeful, for he undertakes to expound certain phrases, merely noting "peculiarities of this verse in LXX."³ Perhaps there is no better exposition of the difficulty of the verse than the translation of the American Standard Version, reasonably literal and accurate as it is:

And there were capitals above also upon the two pillars close by the belly which was beside the network: and the pomegranates were two hundred, in rows round about upon the other capital.

Any attempt to visualize a rational construction from these words will show at once why commentators have commonly taken the easy course of ignoring the verse. What was this "belly" somewhere close to the capitals—or the pillars? And how was it "beside the network"? And, to add to the confusion, the preparation of the capitals for the tops of the pillars has already been related (vs. 16), and the making of the nets (vs. 17). The place and the function of the latter are described merely as

"for" (ל) the capitals, but certainly they were not to be set off somewhere "beside" a "belly" that in turn was only "close by" the capitals.

A first step toward a discernment of rationality in the account is taken when we recognize that mention of the capitals at the outset is merely the resumption of a theme that has been interrupted by details of the nets and pomegranates: briefly the words וכתרה אשר על-שני העמודים גם-כמיכל are a *casus pendens*, not a nominal sentence; the structure is parallel to that in verse 19.

Now, further, whatever we are to make of the phrase "close by" (בליעבה), the "belly" can be nothing else than the rounded surface of the capital itself. And the common view is patently correct that the "nets" were decorations hung around or cast with the surface of the capitals. Briefly, the word לעבר, translated in the ARV "beside" but more properly "opposite," here means "corresponding to," "fitting the surface," more simply, "upon the surface." This will not strain its common meaning but merely give a special application to fit this technical passage. And the force of בליעבה, "close by," is similar; it means "beside." But how near or far must one have an object for it to be "beside"? Can it be in contact?

But all this has been told in verses 16–18. It is possible, indeed, that we have here but a case of tiresome redundancy, as most commentators believe. But equally it is possible that the author was citing these features, already presented in detail, in order to clarify the basis for his further statement. And this statement would then follow in the balance of the verse. But it is separated both by the presence of *athnaq* and by an introductory *waw*. Yet neither of these considerations is conclusive. The massoretic punctuation is certainly wrong in places—at the best it was only the opinion of men a thousand years and more re-

¹ *Die Schriften des Alten Testaments*, II, 1.

² *Handkommentar zum Alten Testament*, ad loc.

³ *Notes on the Hebrew Text of the Books of Kings*, ad loc.

moved from the authors. And *waw* has a number of uses quite diverse from the force of English "and"; in addition to its explicative meaning, it introduces, not uncommonly, the predicate with a sort of emphatic or determinative force. If we may so regard it in this case and remove *atmaq* to סביר and put *zaqeph* on זמיעל, we secure a meaning that is at once lucid and relevant:

As for the capitals on the tops of the two columns (literally, upon the columns even above):

along the rounded surface, upon which was the network, there were two hundred pomegranates in two rows round about; and so on the other capital.

Even so, the verse seems to be 90 per cent a repetition of facts already given. True; but its new feature is that it makes clear the location of the nets, a matter that previously had been only inferred.

UNIVERSITY OF CHICAGO

CORPORATE PERSONALITY IN JOB: A NOTE ON 22:29-30

ROBERT GORDIS

IN HIS stimulating paper on "The Sources of the Suffering Servant Idea,"¹ Professor J. Philip Hyatt follows H. W. Robinson in calling attention to the widely prevalent conception of "corporate personality" as a source for Deutero-Isaiah's thought.² Particularly welcome is Hyatt's emphasis upon what we may call the positive aspect of the doctrine, that not only punishment, but salvation as well, may accrue to the group from the actions of the individual.³

This insight, at which we arrived independently, is the key, I believe, to the enigmatic passage in Job 22:29-30, with which Eliphaz closes his fourth and last address to Job:

כִּי הִשְׁפִּילָהּ וְתִאֲמַר גְּדֹה יְהוָה עֲיִנָּי יוֹשֵׁעַ
יִמְלֹט אֶרְיָקִי נִמְלֹט בְּבֵר כִּפְדִּי

The difficulties scholars have encountered in this passage may be studied in detail in the commentaries. Thus verse 29 has been rendered: "If they lowered you" (Rödiger, Hitzig), or "If your ways are depressed" (Ewald,

Delitzsch, Dillmann), "You say 'Rise up,' and He will save the humble [i.e., Job]."

Other commentators refer the promised salvation, not to Job, but to the innocent in general, but then find difficulty in נָקִי *nāqīy*. They therefore emend it to נָשׁ *nāṣh*, "an innocent man" (Reiske, Dathe). A far-fetched attempt to extract this meaning from the Massoretic Text is to interpret it as "one unjustly condemned (but innocent)" (Rabinowitz-Abronnin).

The obviously unsatisfactory character of these interpretations has led to a plethora of emendations, among the best of which are: *kī hišpīl ʾōmer gaʾawāh* (Duhm); *kī hišpīl ʾet rām wʾgāch* (Beer); and *kī hišpīl rāmeh gēwoh* (Hoelscher). After an extensive discussion, Driver-Gray (*I.C.C.*, I, 198-99; II, 157-58) adopt Budde's emendation for 29a: *kī hišpīl ʾelōah gaʾawāh*, and in verse 30 read: *yimmālēl ʾiṣ nāqīy wattimmālēl bʾbʾōr kappehʾa*. Nonetheless, they are constrained to admit that, "even as emended, the text is not a very forcibly expressed conclusion to the speech."

When, however, the entire passage is understood in terms of traditional Hebrew thought, it constitutes a powerful close to Eliphaz's address, without the need of radical emendation. Like all the Friends, Eliphaz stands foursquare upon the ancient doctrine of corporate responsibility, against which Jeremiah (31:20-21) and Ezekiel (14:12 ff. and chapter 18) inveighed (cf. Job. 5:4-5; 8:15, 22; 21:19a).

¹ *JNES*, III (April, 1944), 79-86.

² Cf. Robinson's fundamental paper, "The Hebrew Conception of Corporate Personality," *Werden und Wesen des Alten Testaments* ("BZAW," Vol. LXVI [1938]), pp. 49-62). A significant development of several phases of this basic outlook will be found in Aubrey R. Johnson, *The One and the Many in the Israelite Conception of God* (Cardiff, Wales, 1942), pp. 6-17.

³ *Op. cit.*, p. 80.

This idea had, as we have noted, its positive as well as its negative aspects. In addition, it was not only "vertical" but also "horizontal," that is to say, it operated in space as well as in time, so that a righteous individual could save not merely his descendants but also his contemporaries. That is the basis of Abraham's appeal to God to save Sodom for the sake of ten righteous men and Ezekiel's citing of the doctrine, to which he objects, that the presence of Noah, Daniel, and Job in a city could save it from destruction (14:14 ff.). Another case in point is Job's prayer for his friends (42:8, 10).

This doctrine never disappeared from Judaism. Even after the idea of individual responsibility was accepted, it continued in the idea that a saint could even set aside God's decree, as in Talmud Babli, *Moed Katan*, 16b: "Said the Holy One, blessed be He, 'I rule over man, but who rules over Me? The Saint, for when I issue a decree (*gōzēr g'zērāh*), he sets it aside.'" The same idea persisted in the widespread Jewish folk belief of the thirty-six saints whose lives glorify God's presence and preserve the world from ruin (*lamed-vav šaddikim*).⁴

It is from this standpoint of "horizontal" corporate responsibility that Eliphaz speaks. A righteous Job will not only be restored to personal safety (22:21, 23) and prosperity (22:25) but will also regain his great influence among men and with God. His mere word will suffice to save those humbled in society, and even the guilty will escape divine punishment because of Job's transcendent righteousness. On the juxtaposition of these two ideas—favor with God and man—compare Num. 32:22 ("Ye shall be free from guilt before God and Israel") and Pr. 3:4 ("and find grace and good favor in the eyes of God and man"),

⁴ Talmud Babli, *Suk.* 45b: "The world cannot do with less than thirty-six saints who greet the Divine Presence daily."

for which parallels may also be adduced in Canaanite literature.⁵

Verses 28-30 now require no change in the Massoretic Text, except for the possible, though not absolutely necessary, modification of the vowels in one word. The passage now gives an excellent climax to Eliphaz's speech:

Thou shalt issue a decree⁶ and it will be fulfilled for thee,
And light shall shine upon thy ways.
When men are brought low,⁷ thou wilt say,
"Rise up!"⁸
And the humble will be saved,⁹
Even the guilty¹⁰ will escape punishment,¹¹
Escaping through the cleanness of thy hands.

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⁵ Cf. the Phoenician inscription from Memphis in M. Lidzbarski, *Altsemitische Texte* (Giessen, 1907), p. 35, l. 4: *wytn lm hn whym l'n l'nm wbn 'dm*, and the inscription of Yehawmilk of Byblus in *ibid.*, p. 14; cf. G. A. Cooke, *Textbook of North-Semitic Inscriptions* (Oxford, 1903), pp. 18, 24: *wtn . . . hn l'n l'nm wl'n 'm 'rs z*. I am indebted for these references to my colleague, Professor H. L. Ginsberg.

⁶ Note the root *gāzar*, "decide," used in the passage in *Moed Katan* cited above.

⁷ The *hiphil* is used intransitively (cf. *hīrhīq* [Gen. 44:4]; *hāsmēn* [Isa. 6:10]). Or, less probably, the clause may be translated, "If they cast men down, etc."

⁸ On *נָתַן* as an alternative spelling for *נָתַן*, "pride," cf. Jer. 13:17 and Dan 4:34.

⁹ Probably to be vocalized as a *niphal*, *yīwāšē'a* (so also Hoelscher). On the other hand, W. A. Irwin suggests in a note to me that the *hiphil* of the MT be retained, either as an indefinite subject equivalent to a passive or that "God" be understood as the subject.

¹⁰ *אֵין* is the negative particle, common in rabbinic Hebrew and normal in Ethiopic. While "Ichabod" (I Sam. 4:21) may originally have been a theophorous name, the biblical author undoubtedly interprets it as containing the negative particle, "No-Glory" (cf. "Saying, 'Glory has departed from Israel'" [*ibid.*]). He thus testifies to the antiquity of its usage as a negative in Hebrew.

¹¹ The *piel* of the Massoretic Text does not require a change to the *niphal*, since the *piel* may be used reflexively and hence is a virtual passive. Cf. Gen. 41:14, *wayyēgallāh*; Amos 2:15 *wēqal b'ēraglāw lō yēmāllēl*.

BOOK REVIEWS

The Legacy of Egypt. Edited by S. R. K. GLANVILLE. Oxford: Clarendon Press, 1942. Pp. xx+424. \$4.00.

Like the other volumes in the famous "Legacy" series, this is a collection of essays written by a number of experts. Unlike the others, the present volume was brought out when conditions affecting such an undertaking were, owing to the war, at their worst. The editor himself has been in the service of his country, and the difficulties of communication with many of the contributors, some of whom, such as Capart and Seidl, could not be reached, must have seriously handicapped him. That the book has appeared at all and is a valuable addition to the series, is greatly to the credit of Mr. Glanville.

"Legacy" is rightly interpreted in the wide sense. Indeed, it could well be argued that everything which we know now or shall ever learn about ancient Egypt is properly part of her legacy to us. Since, however, it would be impossible to encompass in four hundred pages our present knowledge of Egyptian history and culture, it has been necessary to make a selection. The discrimination exercised by the contributors has been generally excellent, and the book is well rounded, far from sketchy, and eminently readable.

Two chapters, one on chronology and one on the general political history of the Near East from prehistoric times to the classical world, give setting and background for the others. It is unfortunate that the first chapter, by J. W. S. Sewell, must be regarded as by far the weakest in the book. In so far as its aim was that of providing "a few chronological pegs upon which the history of ancient Egypt may be hung," the chapter is successful though arbitrary. A precise date of 3188 for the accession of Menes, on the evidence suggested, is hardly acceptable, but the general accuracy of this date, allowing some leeway plus or minus would be approved by all advocates of the "short" chronology. Again, the precise dating

of the commencement of the Twelfth Dynasty to 1990, solely on the basis of the Sothic date of Sesostriis III, ignores the lack of adequate data for a determination of the *arcus visionis*. Unless other chronological data are available, any Sothic date can at best be expressed as falling within a twelve-year range.¹

When, however, the author theorizes on the origins of the calendars of Egypt, the results are far from happy. Few scholars are likely to accept his ingenious idea that years of 365 and 365 $\frac{1}{4}$ days were installed at the same time so that by the difference in days between the two New Years the number of years since the inauguration of the era could be determined. The idea of a year of 365 $\frac{1}{4}$ days in early use in Egypt, the so-called "fixed" year, dies hard. Unless the Ebers calendar be considered as such, and there are excellent reasons for not thinking so, there is "not one document giving equivalent dates in the known 'wandering' year and the hypothetical 'fixed' year. Furthermore, by the time that relations with the outside world were such as to result in unprejudiced foreign evidence on the customs of Egypt, we find the Egyptian both ignorant of, and unreceptive to, the idea."²

The second chapter, by Margaret S. Drower, gives the political background. Naturally, an attempt to sum up the history of the whole ancient Near East from the earliest times to the Persian empire in thirty-five pages is bound to be somewhat lacking in detail. Only the general picture can be drawn, and this the author has done quite well. A few corrections may be noted. Writing (p. 22) was probably an invention of Mesopotamia borrowed by Egypt rather than a separate discovery in both countries. The old view of the antagonism and racial conflict between the Semites and the Sumerians, still maintained by the author (p.

¹ W. F. Edgerton, "Chronology of the Twelfth Dynasty," *JNES*, I (1942), 308 ff.

² So H. E. Winlock, "The Origin of the Ancient Egyptian Calendar," *Proceedings of the American Philosophical Society*, LXXXIII (1940), 451.

25), needs revision in view of Jacobsen's discussion of the subject.³ The so-called Code of Hammurabi (p. 30) was not a "legal code" but rather a "case book." The Assyrians did not win a victory at Karkar (p. 47) but at best drew the battle. They may even have suffered a defeat.

Six chapters follow which are devoted to the culture of pharaonic Egypt, writing and literature (Alan H. Gardiner), art (Jean Capart), materials and mechanical and technical processes (R. Engelbach), science (R. W. Sloley), medicine (Warren R. Dawson), and law (Erwin Seidl). The names of these contributors are sufficient assurance that these chapters are solidly informative and ably presented. A number of plates and illustrations add measurably to the value of the presentations of art, processes, and science.

Gardiner's chapter is especially interesting in that part which he devotes to a critical review and a reaffirmation of his theory that the origin of our alphabet is to be found in the Sinaitic inscriptions.

Two corrections to the chapter on science require mention. The *hekat* (p. 168) was not approximately a bushel. Since its content was 292 cubic inches (= 4.785 liters), it would take about $7\frac{1}{2}$ *hekat*'s to make a bushel. The explanation of the *remen* (p. 176) needs clarification. According to the author, "the most important lineal unit was the royal cubit of 20.62 inches, divided into 7 palms or 28 digits. This was the side of a square of which the diagonal was 29.161 inches, the basis of land measure—the principal unit being the *remen*, half this diagonal." The basis of land measure was, of course, the cubit, both lineal and square. The error arises from the fact that there were three units of measure called *remen*, all deriving from its meaning of "half." The diagonal of a square cubit was considered by the Egyptians to be exactly 40 digits. A *remen* was half of this, or 20 digits; and this name has been found at the 20-digit mark on the ancient cubit measuring sticks preserved. The principal multiple of the lineal cubit was the *khet* or

"rod" of 100 cubits. Half a *khet* was called a *remen*. The principal area unit was the square *khet* or "aroura." Half a square *khet* was also called a *remen*.

In his chapter on law Seidl discusses a court decision on the genuineness of a document (p. 201). According to him, the court decided that the defendant had only to bring three witnesses who would swear to its genuineness, not because they had been present when the document was drawn up, but because they had faith in the veracity of the defendant. Papyrus Berlin 9010, which Seidl is evidently discussing here, does not bear out his statement that the witnesses were strictly "character" ones. The decision states:

If this Sebekhotep bring three reliable witnesses who can be trusted, who will make (oath): "Thy might be against him, O God! inasmuch as this writing was indeed made in accordance with the speech of this Woser [about it]," (the property) shall continue to be in the house of this Sebekhotep, after he has brought these witnesses in whose presence this speech was said. . . . But if he does not bring three witnesses in whose presence [this] speech was said, then nothing of this Woser's shall remain with him. . . .

The point is that the witnesses had to have heard Woser declare his intention, which was then embodied in a written document.

One chapter is devoted to the relations between Egypt and Israel (W. O. E. Oesterley). It might be pointed out that the earliest contact between Egypt and Syria-Palestine (p. 218) of which we have written evidence is from the reign of Snefru. The exile Sinuhe (p. 219) probably lived in southern Syria rather than southern Palestine; and on the whole question of the relations of Middle Kingdom Egypt with Palestine one should now see Wilson's study.⁴ The dates and general course of events of the downfall of the Assyrian Empire (p. 231) has been the subject of a recent investigation.⁵

The last chapters in the book relate the history of Egypt after her own glory had largely passed, when she was under the domination of the Greeks, the Romans, and, lastly, the

³ Thorkild Jacobsen, "The Assumed Conflict between Sumerians and Semites in Early Mesopotamian History," *JAOS*, LIX (1939), 485 ff.

⁴ John A. Wilson, "The Egyptian Middle Kingdom at Megiddo," *AJS*, LVIII (1941), 225 ff.

⁵ Waldo H. Dubberstein, "Assyrian-Babylonian Chronology (669-612 B.C.)," *JNES*, III (1944), 38 ff.

Arabs. The contributions which the Greek papyri have made to our understanding of this late period are ably dealt with by C. H. Roberts, and A. H. M. Jones discusses with discernment the interchanges between Egypt, Greece, and Rome. The large topic of Egypt and Christianity is divided between J. M. Creed and De Lacy O'Leary, with the former outlining the effect of Egypt upon the development of the Christian church with special reference to Origen, and the latter relating the debt which monasticism owes Egypt.

"Egypt and the Byzantine Empire" is discussed by H. I. Bell. The period from Diocletian to the coming of the Arabs, some four centuries, was one of great change for all the Roman world, and Egypt suffered with the rest. The decay which weakened the country economically and spiritually made her an easy prey to the newcomers on the historical scene. But, as usual, Egypt altered her conquerors more than they altered her, though this aspect of Egypt and Islam is rather ignored by A. J. Arberry, who emphasizes, instead, the contributions made by Egyptian-born Arabs to literature, architecture, and the other arts.

A final chapter, by A. M. Hocart, sums up in extremely interesting fashion the legacy to modern Egypt. He shows how the oldest conceptions of the state and kingship, of religion and the gods, of ordinary life and social organization, have not been lost through the centuries but have been adapted and are effective even today. Much might yet be possible for modern Egypt, if it could but awaken to the glory of its heritage, not in blind, introspective admiration, but with a sense of challenge and of continuity.

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Coptic Egypt. Edited by JOHN D. COONEY. Brooklyn, N.Y.: Brooklyn Institute of Arts and Sciences, Brooklyn Museum, 1944. Pp. 58. \$0.75.

The Brooklyn Museum is to be most cordially congratulated on the very respectable series of publications which it has been issuing in late years. Cooney's *Late Egyptian and Cop-*

tic Art (JNES, III [1944], 108) is here supplemented by a publication of the papers read at a 1941 symposium held under the joint auspices of New York University and the Museum in connection with an exhibition entitled "Paganism and Christianity in Egypt." Westermann's survey of Coptic backgrounds and Nock's paper on the Copt religion are models of incisive presentation. Nersessian emphasizes the importance of Coptic painting as a reflection of the religious beliefs of the Copts, and Dimand endeavors to solve some of the problems connected with the dating and classification of Coptic textiles. A modified form of Cooney's introduction to the catalogue of the Brooklyn exhibition is reprinted, and Dows Dunham gives a foretaste of what may be expected from final publication of the highly significant excavations of Harvard and Boston in Coptic sites. Each paper is provided with a well-chosen bibliography, and the inexpensive volume thus becomes a key to a general knowledge of the civilization of Egypt during the early Christian period.

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Hittite Hieroglyphs, III. by IGNACE J. GELB.

("Oriental Institute Studies in Ancient Oriental Civilization," No. 21.) University of Chicago Press, 1942. Pp. xix+75. \$1.75.

Professor Gelb has now, after the publication of the three parts of his *Hittite Hieroglyphs* (1931, 1935, 1942; cf. my review, *AJSL*, XLIX, 61-66, and notices, *BASOR*, No. 61, p. 30, and No. 88, p. 40) and his *Hittite Hieroglyphic Monuments* ("Oriental Institute Publications," Vol. XLV [Chicago, 1939]) taken the lead in the effective decipherment of Hittite. His first monograph was of great significance in laying a solid foundation for the decipherment of the Hittite syllabic characters, thanks to his recognition that these characters must in principle represent consonant+vowel, for which he cited the number of phonetic characters which corresponded closely to the number of Cypriote characters, especially since it could be shown that the two systems agreed in employing only one sign for each stop sound. At that time I accepted Gelb's principal con-

tentions but criticized his linguistic method. Since then his basic discovery about the nature of the syllabary has been accepted by Hrozný, Meriggi, and others, and his linguistic method has improved greatly.

In the study before us Gelb devotes himself to a renewed examination of the Hittite hieroglyphic syllabary, with a number of improvements which consolidate our knowledge in a satisfactory way. I think that he is inclined to overdo the principle that each character must represent consonant + vowel, and I agree with certain objections of Meriggi. In particular, the so-called "tang" should probably be +r not ra, r(a), as Gelb now thinks. In practically all proper names whose reading can be confirmed from cuneiform sources the tang seems to close a syllable: e.g., *Wa+r-pa-la-wa* = Assy. *Ur-pal-la-a* (Bossert); *U+r-ḫi-li-na* = Assy. *Ur-ḫi-li-ni*. Gelb's extremely plausible theory that two of the signs on page 2 are nasalized *ā* and *ī* belongs in the same picture, since it is probable that Hittite final *r* was very weak (cf. *Hittite Hieroglyphs I*, p. 13, n. 1). The striking parallelism between the Egyptian syllabic orthography (on which see my *Vocalization of the Egyptian Syllabic Orthography* [New Haven, 1934]) and the Hittite hieroglyphic system (which Gelb first called to my attention) thus extends to the principal consonant+vowel and also to the inclusion of characters representing vowel+r and *n* (though the quality of these sounds in Egyptian was quite different from their probable quality in Hittite). It may be added that there are also several instances of more complex phonetic rebus in Hittite (Gelb, pp. 37-38), just as in Egyptian (*Vocalization*, p. 27, to which I can now add a few additional cases). It is premature, of course, to infer that the Hittite syllabary was developed under Egyptian influence (though this has been plausibly inferred for the Hittite hieroglyphic system as a whole and there is no chronological difficulty involved).

I am increasingly convinced that the reading *ḫa*, *ḫe*, *ḫi*, *ḫu* of the four characters discussed in *Hittite Hieroglyphs, II* (pp. 16-19) and *Hittite Hieroglyphs, III* (p. 5), should be corrected to *ḡe*, *ḡa*, *ḡi*, *ḡu*, respectively. This correction is phonetic, not systematic, and no

equations of Gelb's are affected by it. In the first place, Egyptian transcriptions show that the Egyptians heard the Hittite "ḫ" as a variant of *g*, without any relation to the Egyptian front velar *ḫ* or back velar *ḫ* (on these sounds see Worrell, *Coptic Sounds*, pp. 37 ff.). Thus Hittite *Giluḫepa* appears in Egyptian syllabic transcription as *Ki-r-gi-p(a)*; the Hittite divine name *Tarḫub^u* (Gelb, p. 4, etc.) appears as *Ta-r-ga-* (*Vocalization*, p. 63, XIX. A. 16, and for various forms of the divine name in question also Friedrich, *Kleinasiatische Forschungen*, I, 370). Moreover, the equivalence *^aPa-x-la-ta-* strongly suggests a consonantal value *ḡ-* rather than *ḫ-*, since *ḡ* is more like the putative *c* in the Semitic original *Ba-lat(a)* than is *ḫ*. In the second place, the sign read "ḫa" by Gelb should be *ḡe* in the name *^aḡe-pa-tu* = *Hepat* (Egyptian *Gi-pa*) and in a personal name containing the same element. Hrozný had already considered the values *ḫe* and *ḫi* as well as *ḫa* for it. Moreover, Hrozný had read Gelb's *ḫa* (my *ḡe*) as *ḫe*, my *ḡa* as *ḫá*.

Gelb's latest effort to solve the long-standing enigma of the bilingual seal of "Tarkondemos" returns to his older reading of the cuneiform legend as *^mTar-qu-u-tim-me* and proposes that the Hittite inscription be read as *Tarḫu-zi* (pp. 26-29). The basis for reading the second sign as *zi* is weak, depending as it does on a single broken character in another inscription, and the distance between the cuneiform and hieroglyphic forms is extraordinarily great. It is at least as possible that the reading *^mTar-qu(m)-mu-wa*, which I proposed in 1927 and Friedrich defended very vigorously in 1930, is correct, and that the hieroglyphic character is an ideogram for *muwá* (a word which Gelb finds elsewhere in the Hittite vocabulary in the meaning "strong, great"; cf. p. 9 of the present study). However, only the future can establish the correct reading of this remarkable seal, now in the Walters Gallery in Baltimore (Dorothy K. Hill, *Archiv orientální*, 1937, pp. 307 ff.).

In conclusion we wish to congratulate the author on another valuable contribution to the decipherment of the Hittite hieroglyphs.

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The Three Ages: An Essay on Archaeological Method. By GLYN E. DANIEL. Cambridge: University Press; New York: Macmillan Co., 1943. Pp. 60. \$0.75.

This is an exasperating little book. In all fairness to the author, it may be said that this reviewer's exasperation stems mainly from the confusion of terminology current in Old World prehistory. The author is not overly brave in his struggles with this situation; many things said here have been said as well before, and no Gordian knots are cut. On the other hand, the author succeeds in worrying many of the problems of the various schemes of terminology out into the open, and the book could be the starting-point for the construction of an objective taxonomic system.

The claimed object of the book is "briefly to describe the origins and development of the idea of the three ages" which C. J. Thomsen set forth in 1836, the "division of human history, on the basis of the raw materials of industry, into three ages—the Stone Age, the Bronze Age, and the Iron Age." The author continues that he means to discuss the idea of the three ages as to "some of the aspects of its applicability to the modern study of prehistoric archaeology." His conclusion seems to be that "the Thomsen three-age system remains a generalization about the technical development of man . . . a generalization which, at the present day, assumes little importance when compared with other generalizations such as those of the functional-economic scheme." With reference to the subtitle, the book contains nothing of archeological method in the sense of excavation or preparation techniques; the method concerns itself rather with terminology and classification.

The first section of the book is a historical account of Thomsen, the background and surroundings in which his system arose, and its subsequent stratigraphic demonstration in Denmark. The second section discusses the implications of the three-age system, the classic exceptions to it (e.g., Africa), and the elaborate subdivisions which have been imposed on the system in northwestern Europe. The third section examines the different usages which the author feels have rightly or wrongly

been imposed on the system and its subdivisions: (1) the typological usage, (2) the cultural usage, (3) the chronological usage, (4) the functional-economic usage, and (5) other usages such as the diffusionist one and the question of whether the three-age system actually has primary significance at all in human prehistory. The fourth section of the book is a summary.

It is the third section—that on usages—which is most uncomfortable. Using the three-age system as a vehicle, the author makes it quite apparent that he is unhappy about the confusion of terms which exists in Old World prehistory, but he does little to remedy the situation. One example of the author's train of thought must suffice here. He retains the term "culture" for prehistoric archeology; he objects that "it is as mistaken for anthropologists to declare that all prehistoric cultures are merely assemblages of artifacts as for archaeologists to pretend that they can treat all prehistoric cultures as anthropologists do living ones." On the other hand, he admits that "prehistoric cultures appear to us as little more than significant and persistent associated assemblages of artifacts," whereupon it is necessary for him to qualify "appear" with "notwithstanding appearances, a prehistoric culture *was* very much more than its archaeological expression at the present day" (the emphasis is ours). Other definitions follow; for example: "An industry is a facies of a culture and a culture is an agglomeration of industries." One is bound to wonder what kind of an agglomeration of industries is the "Chellean culture," which seems at best to consist of a single flint type tool and various "atypical" flint flakes, in geological context only.

It is high time for a housecleaning in the terminology of Old World prehistory and for the construction of an objective taxonomic scheme with respect to the available artifactual evidence alone (with its stratigraphic and regional contexts). The word "culture" has meaning in the social sciences,¹ and its use in prehistoric archeology, even if approached

¹ Cf. David Bidney, "On the Concept of Culture and Some Cultural Fallacies," *American Anthropologist*, XLVI (new ser., 1944), 30 ff.

from the humanistic point of view, can lead to nothing but confusion. "Culture" should not appear in the taxonomic scheme. The word "assemblage" would seem to be a useful one, especially if it were to describe the available total of artifacts, nonartifactual materials (associated fauna, flora, minerals, etc.) and such nonmaterial traits as do appear in prehistoric ranges (e.g., burial customs), which are persistently associated in a given archeological horizon and area. "Industry" or some term roughly synonymous with it would be useful in describing the various available tools in single categories of material, e.g., the Acheulean flint industry, the Magdalenian bone industry. This would tend to remind us of the true paucity of our knowledge of the earlier ranges of prehistory in particular (where no "assemblages" would yet be available). It would also save us some embarrassment in case we presently find, for example, that more than one now recognized flint "industry" may have archeological context (in the "assemblage" sense) with another.² Taxonomic terms of a degree higher than "assemblage" could be decided upon without choosing words having the implications of "culture" or "civilization."³ These last should be retained

² Cf. H. de Terra and H. Movius, Jr., "Research on Early Man in Burma," *Transactions of the American Philosophical Society*, XXXII, Part III (1943), 377. Here Movius, speaking of the biface and flake tool preparation traditions of the Lower Paleolithic of Europe, writes that "except on the extreme north-western periphery of their distribution—i.e., France and England—these two types of implements, sometimes considered to be mutually distinct industries, cannot be segregated as separate and independent developments." This is a point which needs to be made loudly and often by Old World prehistorians, and, in conjunction with it, the present lack of proper archeological (as against geological) association of artifacts in the Lower Paleolithic of Western Europe should be borne in mind.

³ There are two taxonomic systems in current use in North American archeology, which is, of course (in pre-contact times), fully prehistoric. One of these was devised for the southwestern United States by W. and H. S. Gladwin, *A Method for the Designation of Cultures and Their Variations* ("Medallion Papers," No. 15 [Gila Pueblo, Globe, Arizona, 1934]). The terminology proceeds from "roots" (mainly postulated) through "stems," "branches," and "phases." The system has been corrected and refined since its publication, but there is no recently published appraisal of its usage.

The more widely used scheme is the so-called "McKern taxonomic system," which has recently

for those ranges of historic archeology where art and writing so complement the normal objects of an assemblage that an understanding of the life and thought of the people in question may be implied.

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The Problem of Ezekiel: An Inductive Study. By WILLIAM A. IRWIN. Chicago: University of Chicago Press, 1943. Pp. xx+344. \$3.00.

No brief review can suggest adequately the significance of this book. Also, it is easier to criticize an interpretation of the difficult Book of Ezekiel than to offer a countersolution subject to less objection. The reviewer's job is far easier than that to which Professor Irwin has set himself. The author has given us a thoroughly original, clear-cut, rigorously applied approach to the problem of Ezekiel. The problem is the recovery of the original core of the Book of Ezekiel. Ezekiel's oracles, save for the introductory material, were exclusively poetical and are to be found in fifty-five passages, some of which are composite. Twenty-one of the prophet's utterances consisted of a single line; twenty-three are a single distich couplet. The author adds that at some points he may have been too generous with Ezekiel and so may have accepted phrases which are late and

been appraised in detail by J. B. Griffin in *The Fort Ancient Aspect* (Ann Arbor; University of Michigan Press, 1943), esp. pp. 327-41. The terminology proceeds from "patterns" through "phases," "aspects," and "foci" to "components"; the classification of materials into the various degrees of relationship implied is based on the number of traits which the assemblages in question have in common. Regardless of the subjectivity which may enter into such matters as the "weighting of traits," the McKern system has brought order out of chaos in the eastern and central portions of Canada and the United States.

It does not follow that either of these systems could be directly applied in the Old World but only that the experience gained in their formulation and application might be of value in the construction of an Old World taxonomic scheme. The author of *The Three Ages* is conscious of T. T. Paterson's provocative ventures at the classification of Old World Pleistocene geology, Lower Paleolithic archeology, and human paleontology (*Nature*, CXLVI [1940], 12 ff.), but does not attempt to meet the problems rising out of the Paterson scheme.

trite intrusions. More than 80 per cent of the book is secondary. Much is false commentary on Ezekiel's oracles or commentary on commentary.

Professor Irwin's key to the Book of Ezekiel is his inductive approach. Analyzing chapter 15, he discovers a small, original, poetic core in verses 2-5, with the introductory formula, "And the word of the Lord came to me saying, 'Son of man.'" The rest of the chapter is false commentary. Having thus determined the literary structure of this chapter with what he regards as considerable certainty, Professor Irwin then applies this knowledge in the interpretation of other chapters. Turning to chapters 4 and 5, he finds an original poem of three strophes in 4:1, 2, 9-11 and 5:1-3, while the rest is not merely one commentary but comment on comment. Considerable revision or rearrangement of the text is sometimes necessary to recover the original poetic oracle, which may be at times separated from the introductory formula. Chapters 9, 10, 19, and 39-48 are completely spurious. The expression, "Therefore, thus says the Lord," commonly introduces false commentary, being never used by Ezekiel. The commentators range in date from the Exile to somewhere about the beginning of the present era. "Hosts of men in far lands and diverse ages have enriched it [the Book of Ezekiel] with their devout musings and thought." The commentators wrote in Palestine, in Babylonia, in Egypt, possibly in Syria, and perhaps in the hills of Media and among the sons of Javan. Their work ranges from a simple gloss to lengthy paragraphs. None wrote a full chapter, for the commentaries are composite. The literary history of the Book of Ezekiel is unique.

Ezekiel began to prophesy, according to Professor Irwin's findings, about 600 B.C. He was not among the exiles of 597, but after the fall of Jerusalem in 586 he went into Babylonia. His Palestinian oracles were consistent criticism and warnings. In 12:21 ff., where an original poem is discovered, there is an oracle of comfort which "there seems every reason to date after 586 B.C." In this later period he promised the restoration of Israel and Judah. The doctrine of individualism is his only in-

embryo, since in chapter 18 the original poem is confined to a single tristich line in verse 4. Among other things, the evidence that Ezekiel was a North Israelite, a priest, or a mystic with abnormal psychic experiences disappears.

The study begins with an excellent summary of the history of the interpretation of the problem of Ezekiel, from Oeder and Vogel in 1771 to Cooke, Bertholet, and Matthews. Professor Irwin always writes with a consciousness of the history of interpretation. There are six concluding chapters, dealing with the dates (all are spurious, save perhaps 1:1, which may refer to the thirtieth year of Ezekiel's life), the criteria, the results, the history of the Book of Ezekiel, the work of Ezekiel, and Ezekiel's career and book. The body of the study, under the heading "Induction," is a chapter-by-chapter application of the author's methodology.

Despite its inductive character, one may wonder whether another scholar, using Professor Irwin's methodology, and working independently, would closely approximate his conclusions, picking out, for instance, the same poem in chapters 14, 27, 30, etc. Frequent statements that certain reconstructions are obvious, without question, or beyond doubt are clearly intended to be qualified in the mind of the reader by the frank recognition in the Introduction that the inductive method applied in literary criticism lacks the objectivity possible in the natural sciences. As the reviewer read and reread the book, the following question constantly disturbed him. If the history of the Book of Ezekiel is that presumed by Professor Irwin, could we ever hope to recover Ezekiel's oracles? Would we not be in a position worse than that of the adherents of the more radical forms of the New Testament *Formgeschichte* school?

Some will question whether the author does not demand of Ezekiel too great logical consistency, particularly in the interpretation of the details of Ezekiel's symbolism. From the prophet's viewpoint, does the contrast between the symbolism of the mongrel ancestry of Jerusalem in 16:3 and the abandoned baby in 16:4 ff. demand such serious consideration? It may seem "absurd" to us that in chapter 17

a vine directs its roots toward an eagle in flight and a cedar tree bears fruit, but was not the symbolism but a means to an end to Ezekiel? Equally strange figures occur in oriental art. That in chapter 19 even the last of the kings of the Hebrews are symbolized as rampant lions is not, after all, so strange. Although to Professor Irwin's mind the use of the cedar of Lebanon as a symbol of the land of the Nile is as improbable as any figure can well be, Ezekiel may not have found it so, and the cedars of Lebanon, in any case, were not unimportant to the Egyptians. When Ezekiel uses, of the city of Tyre, the siege symbolism which is more applicable to a city not on an island, may we not take it as an example of the way in which Ezekiel used symbolism and so obviate the necessity of bringing the text down to the time of Alexander or of divorcing it from any allusion to Tyre? Is it our more rigorous occidental logic which causes us to think that the throne chariot has intruded uninvited into the picture? How can we know that a verse is a crude copy of the style and content of the preceding verses, and so a commentary on it, rather than just an illustration of the author's style? When is a phrase a redundant gloss? The reviewer agrees that verses 3-31 of chapter 34 are not original with Ezekiel, but the necessity of separating them from the first two verses is not apparent to him. He believes, with the author, that the doctrine of individualism in 18:5-32 is not Ezekiel's, but it is not apparent to him that they should be separated from verses 1-4. So also in chapters 38 and 39, where Professor Irwin isolates as the original oracle but a single tristich line, in 38:3b, 4, and says that "here is genuine material beyond any possibility of doubt." The reviewer finds much more unity in the non-Ezekielian materials and cannot delimit so narrowly or limit to poetry the oracles of Ezekiel. Among other things, he considers the throne-chariot visions in the first chapters to be original and thinks that it follows that the larger part of chapters 40-48 belong to Ezekiel. The fact of disagreement does not make Professor Irwin wrong! We may note in passing that in 33:21 the reading 11/10/5 (= Jan. 586) in the LXX, Syriac, and some Hebrew manuscripts cannot be correct, since

this would place the event before the fall of Jerusalem in 11/4/9 (= July 586).¹

The relation of the LXX to the Hebrew text naturally occupies much of the author's attention. He rightly makes considerable use of the important Greek papyrus No. 967. Perhaps he gives too much credence to the LXX. The reviewer has attempted to show at another place (*JBL*, LXI, 152 ff.) that the vocabulary of many of the passages in Jeremiah omitted by the LXX is pre-LXX in date and that we must consider them *omissions* in the LXX rather than post-LXX additions to the Hebrew text. Even the famous passage in Jer. 33:14-26 is probably pre-LXX, and that it refers to the Davidic and Hasmonean families, and is to be placed after A.D. 70, seems completely incredible. If the Hebrew text used by the LXX translator did not contain this passage, then we must assume that his Hebrew text had omitted it, not that the passage originated later than the time of the translation. The LXX translators also at times deliberately made a more concise translation, omitting redundant expressions. This is particularly true in the case of Jeremiah, and a good example in Ezekiel is found in 6:5a, which the LXX and Professor Irwin omit as but a trite repetition of 6:4b. A study of 36:23 ff. convinces the reviewer that it is pre-LXX in date, although omitted by Codex 967. In thought and style it belongs with the other "new heart" passages in Jeremiah and Ezekiel. It is most probably a LXX *omission*, whether we can explain the reason for its omission, as Professor Filson thinks, or cannot, as Professor Irwin thinks. If this passage, which has so much in common with passages which are in the LXX, is not to be explained as an actual omission in Codex 967, it may be only that the particular Hebrew manuscript from which it was translated did not contain it, not that it is post-LXX in date. In any case, if the history of the Hebrew text of the Book of Ezekiel is something like what Professor Irwin thinks it to have been, it would follow, as he recognizes, that there would have been many variant Hebrew texts in circulation in antiquity.

A book which will be read and discussed as

¹ Cf. Morgenstern, *JNES*, II (1943), 127.

widely as this one deserves a better format than its present paper cover and reproduction of the typed page. There is no doubt but that it will elicit important and constructive discussion which will add much to our understanding of the Book of Ezekiel. The reviewer is a former student of the author and felt himself again sitting at his feet. Professor Irwin has recovered most of the main themes of Ezekiel's oracles. Even those who cannot accept the author's thesis in most of its detail will find the book rich with suggestions for textual exegesis. The author would probably agree that complete acceptance of his interpretation would indicate an uncritical attitude. He is to be commended for the manner in which he describes his technique in sharp detail and rigorously applies it. We may close this review by noting a few of the many excellent statements in the book concerning proper principles of exegesis. Commonly when we give more attention to the text, we feel less need of tampering with it. The Hebrew text is of prime importance, far surpassing that of the LXX, for the criticism of the Book of Ezekiel. Exegesis must follow, not determine, textual conditions. There is a too common practice of *making* Hebrew poetry rather than finding it. We must always give the benefit of any doubt to the conservative position. No formulation of guides and criteria can ever provide ultimate rules for the dissection of a literary work. To all this we say, "Amen!" We stand much indebted to Professor Irwin for this important book on the Book of Ezekiel.

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Das Haus Egibi in neubabylonischen Rechtsurkunden. By SAUL WEINGORT. Berlin: Buchdruckerei Viktoria, n.d. Pp. 64.

This doctoral dissertation by Dr. Weingort, student of Professors Ebeling and Koschaker, investigates the history of one of the important business families in the late Babylonian period.

A large part of the study concerns itself with tracing the Egibi family tree, and several diagrams are useful in guiding the reader through complex relationships. An appendix discusses linguistic problems which appear in pertinent texts. An admirably classified index gives full references. A brief interpretation of the economic and social materials found in the texts concludes the dissertation.

The chief criticism or regret one might express in surveying this study is that not more space was devoted to interpreting the hundreds of texts dealing with the varied and highly interesting activities of the Egibi house. The problems treated in the Appendix seem to have been chosen on an arbitrary basis. For example, (*amēl*) *urāšu*, *duppi-duppi*, *ahī*, *mala*, some of the phrases investigated by the author, seem to offer little difficulty, while other unsolved problems, such as the precise meaning of the several attributes of silver, are not included. However, the concise delineation of Egibi relationships and the scholarly presentation of the evidence make this study a contribution to late Babylonian history.

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The Ansāb al-ashraf of al-Balādhurī, Vol. IVB: *Indices.* Edited by MAX SCHLOESSINGER. Jerusalem: Hebrew University Press, 1940. Pp. 36.

The decision to issue indexes to this valuable publication in single volumes and even partial volumes as they appear is both generous and wise. Though it will entail much duplication in the end, for present use this decision will render many students happily grateful. Beside the prefatory statement in both English and Hebrew the slim fascicle contains two and a half pages of additions and corrections in addition to the indexes.

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THE TREATMENT OF EMPHATICS IN AKKADIAN

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IN COMPARING Akkadian roots with those in other Semitic languages, Assyriologists have long been aware that they must reckon with the fact that the Akkadian script, invented for a totally different language, was unable to express a number of sounds shared by all the Semitic-speaking peoples, but foreign to Sumerian, such as *h*, *h*, *c*, and *g*.¹ It is the purpose of this paper to point out another peculiarity of interest to comparative Semitic lexicography: the Akkadian treatment of consonantal bases which show two different emphatics (*t*, *s*, or *q*) in other Semitic languages. Since the results are rather uniform, it is possible to state a general rule which at once clarifies this treatment and furnishes a more secure basis for etymological comparisons.

An example can best illustrate the problem. Delitzsch's *Handwörterbuch* lists a verb *qsr* which is obviously related to

¹ Various sections of the regions where Akkadian was current adapted this borrowed syllabary individually, so that Old Akkadian, Old Assyrian, and Old Babylonian show no uniformity in the use of it. However, shortly after the Old Babylonian period, the "canonization" of the then existing Akkadian literature brought about an unequivocal and standardized way of indicating the emphatics. Only material from these later writings therefore was used in this study.

the general Semitic base found in Hebrew קצר, "harvest." As Delitzsch remarked, however, from a purely Akkadian point of view an initial *k* is not excluded. Muss-Arnolt gives the word under *kašāru*, but the latest glossary by Bezold reverts to *qašāru*. An examination of all passages (with the help of the Assyrian Dictionary of the Oriental Institute) reveals the fact that, if we ignore indecisive writings of the type *ik/q-sur*, not a single Akkadian source authorizes the postulated initial *q*. The scribes consistently used the syllabic signs *ka*, *ki*, and *ku* in representing this initial consonant and never used *qa*, *qi*, and *qu*:

(*batqu*) *i-ka-sur* : ABL 91 rev. 3

ku-sur-ma : CT 17, 20 II 78

ka-sir (*nirtu*) : 5 R² 3 III 81

(*anuntu*) *ku-uš-sur-ma* : 5 R² 9 IX 82²

Similarly, the following list shows absolutely no evidence for initial *q* in the case of the verbs which comparison with other Semitic languages would lead one to enter as *qps*, "curl up"; *qrs*, "pinch off"; and *qss*, "tear"; and just as little

² Also an Aramaic docket of the time of Artaxerxes attests this *k* by transliterating the name *kašir* by *ksr* (Clay in *Old Testament and Semitic Studies in Memory of W. R. Harper*, pp. 298, 316, No. 49 [= L. Delaporte, *Épigraphes araméens*, p. 84, No. 109]).

evidence for *t* in the case of *qtp*, "pluck," and *qtr*, "rise" (used with "smoke" or "dust" as subject):

<i>ka-pa-šu</i>	2 R 39 e-f 42-43
<i>ku-up-pu-ša</i>	3 R 65a 12
<i>ka-ra-a-ši</i>	4 R ² 56, 40, 44b
<i>ka-ri-iš</i>	ZA, X, 18 l. 235 (= ZA, XLIII, 70 l. 277)
<i>ki-ir-šu</i>	5 R 42:15 g-h (var. <i>gi-ir-šu</i> : CT 15, 49 IV 5)
<i>ka</i> (var. <i>ga</i>)- <i>ša-šu</i>	ZA, XLII, 243, l. 270
<i>ka-aš-ša-at</i>	3 R 65, 40b
<i>qa-ta-pu</i>	MAOG 1 ² , 50 l. 247; Strassmaier, <i>Nbn.</i> 606, 6.
<i>uq-ta-at-ti-pu</i>	OECT VI pl. 20 K 4958, 5
<i>qut-tu-ru</i>	KAR 203:65
<i>qa-ta-a-ri</i>	MVAG, XLI, 3, Pl. III 36
<i>mu-qa-at-ti-ir-tum</i>	Strassmaier, <i>Nbn.</i> 761, 5
<i>qu-ta-ri</i>	CT 29, 20:20

Writings such as these lead to the obvious conclusion that the coexistence of two different emphatic consonants within the same consonantal base is avoided in Akkadian. Gemination and reduplication, as illustrated by the writings of the various forms of *dqq* and *qaqqadu*, did not affect this principle.

A survey of the available material shows that where two different emphatic consonants appear in roots in other Semitic languages, the emphatic consonant which prevailed in Akkadian did so according to the following gradation: *š*, *q*, *t*. In other words,

š, *q* > Akkadian *š*, *k/g* : *qrš*: Akkadian *krš*
š, *t* > Akkadian *š*, *t/d* : *šrt*: Akkadian *šrt*³
q, *t* > Akkadian *q*, *t* : *qtp*: Akkadian *qtp*

It must be left to further investigation to explain why the voiced nonemphatics *g* and *d* were occasionally used instead of *k* and *t*.⁴

³ Also *garādu* in CT 35, 3:25.

⁴ Other examples beside the instances noted are *lul-la* = *pa-aš-šu*, "cut up"; *tam-ma* = *ga-aš-du* (= ? **qadū*), "sacred," in TCL VI No. 35 ob. III 19-20; *ga-ba-šu* (cf. Theo Bauer, *Assurbanipal* II p. 13, note to Cyl. B V 13) compared with *i-gap-pi-iš*, BRM 4 Pl. 73, 2: *kapāšu* (?).

Once this rule is recognized, a number of Akkadian roots fall naturally into the etymological picture which results:

<i>kalāšu</i>	: Arab. <i>qalaša</i> "turn up, crumple, wrinkle (lips)."
<i>maqātu</i>	: Arab. <i>maqaṭa</i> "overturn, upset; break; irritate." ⁵
<i>laqātu</i>	: Arab. <i>laqaṭa</i> "pick up, glean."
<i>šabātu</i>	: Arab. <i>šabaṭa</i> "hold forcibly." ⁵
<i>kāšu</i>	: Arab. <i>qāša(u)</i> "tear down, demolish (a house); dismantle (a tent)."

It follows from the incompatibility of two different emphatics in Akkadian that there is no necessity for the syllabic values of *qat*, *qāt*, *qāt*, *qaṭ*, *qit*, and *qīt* in both Thureau-Dangin, *Syllabaire accadien*, and Deimel, *Šumerisches Lexikon*, Volume I; nor for *qaš* and *qut* in the latter volume.

An apparent exception like *ṭubqittum*, made up from various texts of "Enuma eliš," I, 64 (cf. MVAG, XXI, 216, n. 1), cannot have existed, and the context makes a reference to "caverns" improbable: *ṭu-ub šit-tum* "good, i.e., sound sleep" fits the context much better (see Heidel, *Babylonian Genesis*, p. 10, n. 21): nor can *tubqināti* be adduced as substantiating such a word, since it is the plural of a singular *tubqinu* (formed like *qutrinnu*) "stony ground?, cemetery?, cave?." In the treaty of Aššur-nirari VI with Mati'ilu (AfO, VIII, 25 IV 16) it is used in the curse: "May their couch be (spread) on stony ground(?)." In CT 38, 2, 31 ff. such soil can abnormally produce cucumbers, ammi (bishop's weed), anemones(?), and cummin.

The proper name *Bēl-harrān-qu-šur-an-ni* (Tallqvist, APN, p. 57a) already

⁵ Professor von Grünebaum has pointed out to me that, beside *maqaṭa* and *qabaṭa*, Arabic exhibits also *maqata* and *qabaṭa* with only slightly different meanings, and there exist other words of similar type, such as *saḡita* (be sad): *saḡaṭa* (to fall); *saḡara*: *saḡara* (to be scorching [sun]); *saḡa'a*: *saḡa'a* (to strike hard; crow); *ṣaḡaka*: Hbr. צחק (to laugh). An investigation of the usage of these terms may throw some light on their origin. In some instances one might suspect survival in Iraq dialect forms.

shows strong Aramaic influence, as does also the name *nabû-qa-ši-ri* in Strassmaier, *Nbn.* 284, 15; the singular formation as well as the shading of the last two signs leaves, however, doubt about the correctness of this name. Such influence may be at the root of *other exceptional writings*; for example, *iq-tu-pu*, Keiser *BIN* I 94, 21 (= Ebeling, *Neubabyl. Briefe aus Uruk*, No. 294) where the context requires the meaning "pluck, pick," and where the scribe in line 25 correctly writes *ta-qât-tap*. Possibly progressive assimilation played a role as in the Assyrian composition *KAH* II No. 141 + *TCL* III (Sargon's Eighth Campaign), line 225 (= Meissner, *ZA*, XXXIV, 113 ff.), *iq-tu-pu-ma*, where the *t* of the root *qtp* was treated exactly like the forms G_2 and D_2 of primae q — $qt > q̄t$ (cf. Ylvisaker, p. 7). This assimilative process was not extended to the other radicals as the example *i-tuq-tu-u-ni: mqt* (Ylvisaker, p. 11) shows, but only confined to the first radical in the Assyrian dialect. In the above-mentioned Eighth Campaign of Sargon, line 227, Meissner transliterates *aq-ši-tu*, while Thureau-Dangin writes *ak-ši-tu* (ll. 265, 276, etc.). That Thureau-Dangin is correct is shown by the Arabic *kašaṭa*, "remove, strip off

(from)."⁶ Other examples like *Maqlû* 3, 17 *aq-ta-ri-[iṣ]* (G. Meier, *Assyr. Beschwör. Maqlû* = Tallqvist, *Ass. Beschw. Maqlû*, Pl. 17, 17) and *Maqlû* 6, 135 *mu-ga-'aš-l-ša-'at* (= Tallqvist, Pl. 87 IV 6) are based on damaged texts. H. L. Ginsberg had also noted isolated instances of this Akkadian habit of dissimilation in Aramaic and Mandaic, which he traced to Akkadian influence (*AJSL*, LII, 96, to which A. Goetze called my attention). Landsberger referred to this characteristic of Akkadian in passing (in *19 Int. Or. Congress* [Rome, 1935], p. 451).

Other scholars likewise show in their transliteration that they are aware of the fact that Akkadian does not exactly follow the common Semitic pattern in the consonantal base, but the strict regularity of this phenomenon has nowhere been stressed sufficiently. To sum up then: an Akkadian consonantal base does not admit two different emphatic radicals; wherever the other Semitic languages exhibit two such sounds within a triconsonantal root, the Akkadian has changed one of them, according to its strength, to the nearest nonemphatic sound.

ORIENTAL INSTITUTE

⁶ Arabic also has a root *qṣṭ* with the same meaning.

COMMENTARY ON NUZI REAL PROPERTY IN THE LIGHT OF RECENT STUDIES

PIERRE M. PURVES

I

FURTHER progress in the evaluation of the Nuzi texts from the economic point of view makes its appearance in *Nuzi Real Estate Transactions* by Francis Rue Steele.¹ In this pioneer work

¹Published by the American Oriental Society, "American Oriental Series," Vol. XVII (New Haven, 1943), to be hereafter abbreviated as *NRET*. Other abbreviations are as follows:

AASOR = *Annual of the American Schools of Oriental Research*.

AJSL = *American Journal of Semitic Languages and Literatures*.

HSS = "Harvard Semitic Series."

JAOS = *Journal of the American Oriental Society*.

JEN = Joint Expedition with the Iraq Museum at Nuzi (American Schools of Oriental Research, "Publications of the Baghdad School Texts," Vols. I-III [Paris, 1927-31], and Vols. IV-V [Philadelphia, 1934] by Edward Chiera; Vol. VI [New Haven, 1939] by Ernest R. Lacheman). The texts contained in these volumes are quoted by number but not by volumes in which they appear, since all texts are numbered consecutively throughout.

JENu = Unpublished Nuzi tablets excavated by the Iraq Museum and the American Schools of Oriental Research in 1926 and at present housed in the Oriental Institute at the University of Chicago.

KAJ = *Keilschrifttexte aus Assur juristischen Inhalts* (Deutsche Orient-Gesellschaft, "Wissenschaftliche Veröffentlichungen," Vol. L [1927]).

MPND = *Movable Property in the Nuzi Documents* by Dorothy Cross (American Oriental Society, "American Oriental Series," Vol. X [New Haven, 1937]).

NKRA = *Neue keilschriftliche Rechtsurkunden aus der El-Amarna-Zeit* by Paul Koschaker (Sächsische Akademie der Wissenschaften, philol.-hist. Klasse, "Abhandlungen," Vol. XXXIX, No. 5 [Leipzig, 1928]).

NPN = *Nuzi Personal Names* by Ignace J. Gelb, Pierre M. Purves, and Allan A. MacRae (University of Chicago, "Oriental Institute Publications," Vol. LVII [Chicago, 1943]).

NRET = See above.

OLZ = *Orientalistische Literaturzeitung*.

Orientalia (N.S.) = *Commentarii de rebus Assyriobabylonicis, Arabicis, Aegyptiacis etc.* editi a Pontifice Instituto Biblico, Nova Series.

RA = *Révue d'assyriologie et d'archéologie orientale*.

RORH = *Über einige griechische Rechtsurkunden aus den östlichen Randgebieten des Hellenismus* by Paul Koschaker (Sächsische Akademie der Wissenschaften, philol.-hist. Klasse, "Abhandlungen," Vol. XLII, No. 1 [Leipzig, 1931]).

SMN = Unpublished Nuzi tablets excavated by Harvard University, the American Schools of Oriental

an approximation of real estate values is successfully compiled, and it forms a *sine qua non* for scholars investigating Nuzi from the social point of view.

As in the rest of preclassical Mesopotamia, purchase was governed by barter, fully developed currency being unknown at the time. Fields, orchards, and buildings were bought and sold for specified amounts of such chattels as barley, millet, livestock, cloth, and metals. In classical, medieval, and modern economy, in which a system of currency prevails, goods have varying monetary values based on a metallic standard. In our modern economy the monetary standard is, theoretically at least, based on gold. To evaluate barter values at Nuzi, a standard of some sort has to be selected, and the most appropriate one is the silver shekel.

Some years ago, Miss Dorothy Cross calculated the value of certain movable goods at Nuzi in terms of the silver shekel.² Steele resorted to these findings in order to calculate the values of parcels of

Research, and the University Museum of Philadelphia in 1927-31, and at present housed in the Semitic Museum at Harvard University.

ZDMG = *Zeitschrift der deutschen morgenländische Gesellschaft*.

The writer takes this opportunity to thank Professor Max Rheinstein, Max Pam Professor of Comparative Law at the University of Chicago, for many invaluable suggestions. It is to be remembered that the writer holds himself accountable for any errors in thought contained in this article. In addition, further thanks are due to Staff Sergeant Henry Warten, U.S.M.C.R., for helpful criticisms with regard for legal phraseology.

The writer departs from some of the renditions of Hurrian names in *NPN*. What is taken as *tešup* there is rendered *teššup* here. Likewise many names ending in *-ni* in *NPN* end in *-ne* here. For the reasons for these changes, see writer in *NPN*, pp. 191, 265.

² *MPND*, p. 62.

real estate involved in the *mārātu* or fictitious adoption contracts relating to transfer of immovables. These contracts, popularly known as "sale adoptions," are deeds in which the seller adopts the buyer as his son and deeds him a specified parcel of property as an inheritance share. In return, the purchaser gives a *qīštu* or gift consisting of commodities aggregating in value the price of the property. The purpose of this legal fiction, no doubt, was the evasion of rules intended to prevent the alienation of land.³ The writer from now on will refer to these documents generally as false or fictitious adoptions, since in Part IV it will be seen that the *mārātu* concerns not only purchases but also forfeitures of property. Specifically, it is safer to consider the false adoption in the main as a conveyance or transfer of title.

Like Miss Cross, Steele set forth his results in terms of the silver shekel; but he attempted to add more precision by using as a basis the copper shekel, which was the lowest in value of all commodities at Nuzi. He set the ratio of these two metals at 1:400 and used this ratio to convert values from terms of copper to those of silver.⁴ This done, he was able to set up values of fields, orchards, and buildings in tables in which the over-all value of each parcel was arranged in terms of the silver standard.⁵

Naturally, real estate values can be determined only when the barter involved commonly used goods which can be evaluated. Whenever vehicles, oil, cloth, or pigs appear among the goods used for barter, no value can be established, for no criterion for the evaluation of these goods has yet been found in the published material.

In some instances, if not in most, Steele can give only approximate or average values, for price fluctuation has to be taken for granted.⁶ In order to trace such fluctuations at Nuzi, a more profound study based on different criteria will have to be undertaken.

Minor variations arise from differing standards of weights and measures.⁷ However, the results, when taken as a whole and as presented on Steele's dot graph,⁸ form a consistent picture which is quite convincing. For instance, Steele shows that orchards, although they cannot be evaluated as precisely as can fields, were considerably more expensive than farm land.⁹ Such a conclusion is in keeping with the relative price values of farm and orchard land the world over. Quite high in value at Nuzi is *paihu* land, which, like orchard land, was generally sold in lots of restricted dimensions.¹⁰ Also high in price are buildings.¹¹

II

Some time ago the writer discussed the earliest known examples of the false adoptions at Nuzi for the sale of real estate.¹² Among them were JEN 82, 560, 561, 562, and 567—tablets containing more than one transaction each. The writer concluded that this type of document with two or more transactions, lacking certain clauses and features encountered in transactions of later Nuzi periods, was characteristic of the older period and represented an early stage in the development at Nuzi. On the other hand, Steele feels that the contents of these older tablets were not

³ *NRET*, pp. 38-39, 43. See also Waldo H. Dubberstein, "Comparative Prices in Later Babylonia (625-400 B.C.)," *AJSL*, LVI (1938), 20-43.

⁷ *NRET*, p. 40.

⁸ *NRET*, Table 3a, p. 72. See also *ibid.*, pp. 38-40.

⁹ *NRET*, pp. 41-42 and Table 5, p. 75.

¹⁰ *NRET*, pp. 27-28.

¹¹ *NRET*, pp. 42-43 and Table 6, p. 76.

¹² *AJSL*, LVII (1940), 166-67.

³ See Chiera-Speiser, *JAOS*, XLVII (1927), 36-37; Koschaker, *NKEA*, pp. 53-66; Steele, *NRET*, pp. 14-16.

⁴ *NRET*, pp. 32-35.

⁵ *NRET*, Table 2 for land, pp. 69-71; Table 5 for orchards, p. 75; Table 6 for buildings, p. 76.

actual transactions but abstracts.¹³ As basis for his view, he mentions JEN 524, which contains, respectively, the abstracts of two false-adoptions for the sale of land (JENu 438; JEN 591) and an abstract of a quitclaim arising from an older false-adoption for the sale of land (JEN) 176).

The three items in JEN 524 are undoubtedly abstracts, for each can be traced to its original. Unlike JEN 82, 560, 561, 562, and 567, the three abstracts on JEN 524 lack certain features common to the Nuzi transactions. They are: (1) mention of the *qištu* payments and their amount; (2) mention of the penalty for not going through with the contract; and (3) the list of witnesses and name of the scribe. In form the texts on the older tablets, when taken singly, do not differ appreciably from many contracts from the early part of the second generation, e.g., JEN 14 and 203; HSS, V, 63, 64, each of which occurs on a tablet devoted to a single transaction. This consideration, together with the difference in content between the older tablets and JEN 524, inclines the writer to maintain his previous view that the records on JEN 82, 560, 561,¹⁴ 562, and 567 are actual transactions and not abstracts like those on JEN 524.

In his previous article the writer examined only those texts which were written by scribes who could be conclusively demonstrated as having been active during the first generation. There are others which were written by scribes who could have been active during the first generation and contain the names of men occurring also in first-generation texts. In form they carry on early scribal traditions, and, if they are not to be dated to the first gen-

eration, they cannot be later than the earliest part of the second generation. Among the documents in question are two more, each of which comprises two or more transactions. The first is JEN 566, with two false adoptions used as contracts of sale of real estate; the other is JEN 253, with five land-exchange transactions.¹⁵

The older tablets containing two or more transactions are seven in number: JEN 82, 560, 561, 562, and 567, discussed in a previous article, and JEN 253 and 566, which have just been mentioned. All in all, these seven tablets present thirty-one contracts in good enough state of preservation for the identification of contracting parties. If these were abstracts, and not contracts, it should be possible to trace at least a few of them to their originals. It has already been noted that the originals for the three abstracts of JEN 524 can be traced with ease. The reader can easily check on this point by tracing the connection with the aid of the newly published *NPN*. Recourse to this method will meet with totally negative results when originals for the alleged abstracts in the older tablets are sought.¹⁶ Allowing

¹³ One of the witnesses in JEN 253 is Muš-senne, son of Ninu-atal, who also appears in JEN 567 and 570, which were written by early scribes. The names of Ewara-tupi, son of Arip-ukur, and Zikuja, son of Kellia, appear in JEN 566 and also in SMN 3094 written by the early scribe Apil-sin.

¹⁴ In some of these, parties forming contracts with the family of Tehip-tilla appear elsewhere but not in the same role. Unap-tae, son of Sešwi-nai, is a contracting party in JEN 567 but appears only as a witness in JEN 289 and 565. Kakkī, son of Apeja, is a principal in JEN 253 but appears elsewhere as a judge (see JEN 381; JENu 471). Eteja, son of Naip-šurra, makes a land exchange in JEN 141, but it is with Tehip-tilla, whereas all the land exchanges in JEN 253, where he also appears as a principal, are made with Halš-tessup. In JEN 211 Eteja's role is that of a witness. The name of the last principal in JEN is Akaja, son of Milkum-atal, and is mentioned also in JEN 257:7, but that is in connection with some property of his which is used as a topographical indication. Zikuja, son of Kintar, a principal in JEN 566, appears only as a witness in SMN 3094.

The personal name "Apeja," which occurs among those just discussed, is listed in *NPN*, p. 22, under the

¹⁵ *NRET*, p. 37.

¹⁶ In this text the penalty clause is lacking throughout. This may mean that the contents are not contracts but quitclaim deeds, on which see Part III.

for loss and breakage, five or six originals should be found for the thirty-one legible texts. But, since none is to be found, it seems probable that none ever existed and that the contents of the older tablets are transactions which, since they are briefer than later ones, indicate a stage in the development at Nuzi. This conclusion is in harmony with the inference of the same sort arising from the formal difference between the older texts and the abstracts in JEN 524.

III

Thoroughly commendable is Steele's treatment of the *šupe-ultu*, or land exchange, for here he correctly understands that the essential purpose of this institution was land consolidation.¹⁷

A large-scale land purchaser like Tehip-tilla would buy up lots sporadically where they were available. Such a man would not be able to exploit these acquisitions with real efficiency unless they were consolidated into one block. To bring such a project into realization, he would have to exchange approximately equal parcels of land with men owning property adjacent to his main holdings. The false adoption for sale of land apparently was co-ordinated with the process of land exchange for the purpose of consolidating the many small holdings of peasant families into large estates owned by a minority of wealthy families. In this connection JEN

662:7 ff. reveals that land was bought as a means of effecting an exchange rather than for immediate cultivation by the purchaser.

Instruments for land exchange fall into two categories: (1) transactions usually beginning with the phrase *tuppi šupe-ulti*, etc., and (2) declarations, beginning with the phrase *lišanšu ša* etc., made by one of the parties of the transaction before *hal-zuhlu*¹⁸ and judges. The distinguishing feature of the latter was a mutual renunciation of claim by both parties, effective on the day of making the declaration. Just why these two different forms were in use may be partially explained by three groups: JEN 260 with JEN 157; JEN 266 and JENu 621¹⁹ with JEN 131; and JENu 529a²⁰ with JEN 152. The docu-

¹⁸ For discussion of this office see Koschaker, *OLZ*, XXXIV (1931), 226, and XXXV (1932), 402; H. Lewy, *Orientalia*, X (new ser., 1941), 202, and XI (new ser., 1942), 5-15; H. Liebesny, *JAOS*, LXIII (1943), 129-31. The writer believes that the precise nature of the office of *halzuhlu* remains to be settled. He agrees with the authorities cited that Tehip-tilla served in that office. However, since Tehip-tilla was not always represented as a *halzuhlu* in the type of tablets in which he generally executes that function (cf. JEN 160 and 176), it is possible that this office was only a temporary one. It does not seem to have been hereditary, for the title was not borne by any of Tehip-tilla's descendants. H. Lewy's attempt to ascribe the functions of *halzuhlu* to Tehip-tilla's issue (*op. cit.*, pp. 13-15) seems to be based on a subjective interpretation of the facts. In many instances Tehip-tilla appears both as principal and as *halzuhlu*; that does not imply, however, that his activities as an acquirer of property are necessarily contingent on his official duties. In such cases, so the writer believes, Tehip-tilla played the dual role of a private individual and an official holding a temporary office. As Liebesny points out (*op. cit.*, p. 130, n. 18) there are instances where Tehip-tilla acts as a *halzuhlu* but not as a party to the transaction.

¹⁹ JENu 621 is identical textually with JEN 266. The difference between the two is that the former actually bears seal impressions, while the latter bears the ideograms *NA₄.KIŠIB* followed by the name of the seal owner, but has no seal impression. Apparently JEN 266 is a copy of JENu 621. The circumstances surrounding this procedure remain to be determined.

²⁰ The transcription of which is as follows:

1. *tup-pi šu-pi-ul-ti*
2. *ša "a-bi-na-tal mār ta-a-[a ū ša]*
3. *"at-ti-la-am-mu mār ta-a-[a-ma it-ti]*
4. *"te-hi-ip-til-la mār pu-hi-še-e[n-né eqlāti^a ki-ma]*
5. *eqlāti^a uš-pi-i-lu 6 [awihari (^{GIS}APIN) eqli ina*

form "Abeja" and is suggested as Akkadian (*ibid.*, p. 295). Miss Edith Porada, while preparing her study of the Nuzi seal impressions, discovered that the seal of the judge Apen-atal (JEN 359:18; 656:30) is the same as that of the judge Apeja (JEN 362:27). Thus the name in question turns out to be a hypocoristic of Hurrian origin, and the Akkadian spelling is unjustified.

¹⁷ *NRET*, pp. 50-54. In fact, the writer reached the same conclusion independently and by the same method. It was treated in a lecture given by the writer before the Near East Club of the Oriental Institute on July 14, 1943, entitled "Development of Private Land Tenure at Nuzi."

ments in each group concern the same piece of property, JEN 260 and 266 and JENu 621 and JENu 529a being deeds of the type beginning with *tuppi šupe-ûlti*, etc., and containing a penalty clause, and the JEN 157, 131, and 152 being the respective declarations sworn by one of the parties and lacking the penalty clause but containing a renunciation of claim. Obviously, the *tuppâti šupe-ûlti*'s are contracts drawn up while the exchanges were being contemplated, but still executory. On the other hand, the declarations with renunciations of claim were drawn up upon completion of the exchange transactions. In fact, the renunciation clause just alluded to marks them as transactions akin to quitclaim deeds showing that all obligations had been fulfilled and that, theoretically, all cause for litigation had been eliminated. The chronological priority of the *tuppi šupe-ûlti* is confirmed by JEN 260, which is a *tuppi šupe-ûlti* drawn up between a certain individual and Tehip-tilla, and JEN 157, which is a "quitclaim" arising from the same land-exchange transaction, drawn up between that individual's son and Tehip-tilla.

In this manner the *tuppâti šupe-ûlti*'s

reveal themselves as executory contracts rather than deeds emanating from fulfilled obligations. They are promises to carry out an exchange within an undefined period of time, and these promises are enforced by the penalty clause levying a heavy fine on the party attempting to break the contract. The question to be settled now is why the vast number of land exchanges were drawn up as executory contracts. What were the factors hampering immediate execution of land exchange?

In this article the fear is expressed that this question cannot be fully answered at this time. It is felt, nevertheless, that some of the factors requiring postponement of performance find their root in the close connection between land exchange and the conveyancing of land through false adoption, i.e., the purchase of land for purposes of exchange as suggested by JEN 662. If men acquired title to real estate with the intention of exchanging it, perhaps there were factors that sometimes made it desirable to separate the contract from the conveyance. Acquisition title had to precede exchange, and if the vesting of the title were not immediate, the exchange, of necessity, would have to be delayed.

As with the *šupe-ûltu* documents, there are two varieties of *mârûtu*, or false adoptions: (1) those that are drawn up under the title of *tuppi mârûti* and contain the penalty clause and (2) declarations, i.e., those that are drawn up before *halzuhlû* and judges with renunciation of claim. Since the *mârûtu* texts follow the same lines as do the *šupe-ûltu*'s, it is only logical to regard the *tuppâti mârûti*'s as executory contracts drawn up before the completion of the transaction. By the same token, the declarations before *halzuhlû* and judges can be viewed as "quitclaim deeds" made to complete the transfer.

'nu-zi i-na iš-ta-na-nu ma-ak-ra-at-ti ša 'i-ri-ri-ti-la

6. ina harran an-zu-gal i-na šu-mi-li [.]
7. a-na 'te-ḫi-ip-til-la it-'ta-ad-nu]
8. ū 'te-ḫi-ip-til-la imēr 2 [awīḫari (G¹⁸_{AFIN})] eqli
9. la šī-qa ina harrani a-be-na-aš ina 'nu-zi' a-na amēlūti it-ti-i[n]
10. ša ma-an-ni-im-me-e eqil-šu di-na irtāši (T^{UR})
11. ū ū-za-ak-ka ša ibbalkatu (B^{AL})
12. [1 MA.]NA kaspi 1 MA.NA ḫurāši i-na-an-din
13. maḫar [ward-ili-šu] mār du-ur-šarri
14. maḫar bi-[ru] mār na-i-iš-ge-el-bi
15. maḫar ki-mil-'adad mār zu-ū-[me]
16. maḫar it-'hi'-'[iš]-'ta' mār a-ar-ta-e
17. maḫar e-we-en-na-an-nē mār še-en-na-a-a
18. maḫar il-ḫi-ip-šarri mār šu-ul-ma-at-ta
19. maḫar zi-li-ia mār 'te-en'-te-ia
20. maḫar ar-ša-li(m) mār ta-am-pu-uš-til
21. maḫar wa-an-ti-ia mār 'na' -ḫi-a-[šu]
22. maḫar a-al-te-šup mār šu-um-me-[ia]
23. maḫar balṭu-kašid mār [a-pil-sin DUB.SAR]
24. aban 'balṭu-kašid DUB.SAR-ri
25. aban 'bi-ru mār na-i-iš-ge-el-bi

Seven of these *mârûtu* affidavits betray themselves as "quitclaim deeds,"²¹ for they are made by men as a fulfilment of false-adoption sales contracted by their fathers. It is regrettable that the original contracts are not so readily identifiable as the various exchange contracts that preceded the quitclaim exchange deeds.

If the ordinary *tuppi mârûti* was a contract for the sale of land, what were the conditions which make the sale an executory contract rather than an executed one? As an answer to this point there arise many possibilities, but for none is there any proof available. Foremost of these possibilities is credit-buying.²² The seller gives the buyer an option on the title on the condition that several specified items be paid over as purchase price, euphemistically designated as *qîštu*, the time of the payment being understood to be in the future. An indication that the *qîštu* was not paid immediately is the absence of any mention of it in JEN 404 and 414, the two false adoptions used as devices for the conveyance of realty that can be demonstrated as the earliest in Nuzi.²³ Presumably, the earliest scribes omitted the *qîštu*, since it did not materialize in the transaction at the time the contract was being drawn up. Undoubtedly, it could not have been long before the omission of such an important item would cause disputes arising from actual or feigned misunderstanding. As already noted in Part II, *mârûtu* contracts from the first generation and the early part of the second generation mention the *qîštu*, as do false-adoption realty sales from then on until the end of the period. Itemiz-

ing the articles in the *qîštu* probably signified that the price agreed upon at the time of the deed was not to change with future price fluctuations.

If the writer's theory is correct, namely, if most false-adoption sales were undertaken on postponed or instalment payments, then it is easy to explain why many land exchanges were set forth in executory contracts rather than in deeds denoting immediate execution. For instance, should a man offer for exchange a piece of property on which he had only a *mârûtu* option, he was in no position to exchange it immediately. Since he did have an exclusive claim on it, he presumably was in the position to make a contract to exchange it in the future, i.e., after full payment of *qîštu* and acquisition of the title to the property.

IV

The normal *mârûtu* contract, which has just been discussed in Part III, does not contain, as a rule, any clause concerning the payment of *ilku*, or dues, to the crown. Does this omission tacitly infer that the dues are to be borne by the purchaser? If this inference is correct, it would imply that the purchaser-adoptee benefited from a further safeguard. It may imply that payment of feudal dues symbolized a right to physical possession.

In addition to these false-adoption realty sales in which the royal dues are not mentioned, there are quite a number which specify that the royal dues are to be borne by the adopter-alienor and not by the adoptee.

Recently these documents have been discussed by Mrs. H. Lewy, who used the ingenious method of tracing various false-adoption contracts to the litigations in which they were concerned.²⁴ The records disclosed that the adopter was in posses-

²¹ JEN 132, 149, 166, 169, 176, 178, and 476.

²² As suggested to the writer by Professor Rhein-stein.

²³ Earlier than those discussed in Part II, for none of the witnesses appears in second-generation tablets. In the *mârûtu* tablets treated in Part II which mention *qîštu*, the witnesses in most of them survived to the second generation.

²⁴ *Orientalia*, XI (N.S., 1942), 15-40; *ibid.*, X 209-50.

sion of the land many years after the false adoption was drawn up for its alienation. This fact made it quite plain that a modification of the interpretation of the *mârûtu* documents was in order. Mrs. Lewy felt that the current view of the *mârûtu* as a realty sale had to be radically altered. According to her view, the false adoption could not be a sale of land by adopter to adoptee if the former was in possession after the deed was drawn up. Instead she considered that the false adoption was an infeudation deed or an enfeoffment. Tehip-tilla, for example, according to the usual view, is regarded as a purchaser of land on a large scale. Mrs. Lewy, however, in view of the evidence before her, believes that Tehip-tilla was a royal administrator in charge of the distribution of fiefs to private individuals. According to her, when a private individual received a royal grant from Tehip-tilla, that person had to adopt him so as to make him the heir to the fief. Thus, at that person's death, the fief would automatically go back to the royal agent for redistribution. The purpose of this procedure, avers Mrs. Lewy, was to prevent feudal land from becoming private family property through usucaption.²⁵ The enfeoffee was prevented at the outset from leaving the feudal grant to a member of his own family. As for the *qîštu* given by the adoptee (Tehip-tilla), Mrs. Lewy considers it to be a royal gift accompanying the fief to enable the tenant to undertake agricultural work.²⁶ Her conclusions concerning the role of the false adoption with the *ilku* clause encourage her to attribute the same function to false adoptions which leave the *ilku* unmentioned.²⁷

As external support for her theory, Mrs. Lewy alludes to the activity of Šamaš-ḥašir, who was an administrator

of feudal land under Hammurabi. She claims that Tehip-tilla was executing the same functions.²⁸ Additional support is sought in feudalism in France during the Carolingian period when a fief did not pass from father to son directly by way of inheritance.²⁹ Apparently, Mrs. Lewy is referring to a usage existing in Europe up to the twelfth century, until which time reinvestiture of the fief was required upon the death of either lord or vassal. It perhaps should have been observed that from the twelfth century on this usage became obsolete and was superseded by the principle of inheritance: a vassal's son automatically inherited the fief.

Mrs. Lewy's theory of re-enfeoffment to prevent usucaption at Nuzi seems, by and large, fanciful. Why is it that a royal officer enforcing the laws of the crown had to impose the royal will under the guise of a legal fiction? Certainly the Šamaš-ḥašir letters do not reveal any such subterfuges in the administration of the crown's land. The parallel with Carolingian Europe is none too strong, because at that time the principle of inheritance displaced the reinvestiture but did not implement it in any way.

Steele's results show that the value of the *qîštu* in land sales as a rule approximated the value of prices paid for land in Assyria.³⁰ Furthermore, as Steele points out, the word *šîmu*, "price," is occasionally used in referring to *qîštu*.³¹

Mrs. Lewy asserts that litigation between the adoptee and kin of the adopter is evidence of the compulsory return of a "fief," so called, after the death of the fief-holder.³² But then Liebesny³³ and Steele³⁴ observe that JEN 365, 371, and 383 are court actions in which the adoptee

²⁵ *Ibid.*, XI, 9.

³⁰ *NRET*, pp. 59-60.

²⁶ *Ibid.*, p. 22, n. 5.

³¹ *NRET*, p. 12, n. 12.

²⁷ *Orientalia* (N.S.), XI, 20-22.

³² *JAOS*, LXIII (1943), 130, n. 20.

³³ *NRET*, p. 12, n. 12.

²⁸ *Ibid.*, XI, 21-23.

²⁹ *Ibid.*, p. 18.

²⁷ *Ibid.*, X, 212-15, esp. p. 212, n. 4.

sues to recover possession from the adopter during the lifetime of the latter.

It so happened that Mrs. Lewy discussed two of these, JEN 371 and 383.³⁵ The first of these deals with a controversy that goes back to JEN 210, a false adoption without the *ilku* clause. This would mean, if the writer's views as expressed in Part III are correct, that this was a contract of sale envisaging delivery of possession upon completion of *qistu* payments. Apparently before the litigation took place in JEN 371, delivery of possession to the adoptee-plaintiff had been made, for it is stated in lines 7-11 that the property had been given over to the adoptee but later had been seized again by the adopter-seller. The defendant avers that it was really a third party who had made the seizure and that he, the defendant, had remeasured the land and would give it back to the plaintiff.

This case weakens Mrs. Lewy's thesis somewhat, since it implies that the possession of the land had been transferred to the adoptee previously. Furthermore, as noted by Steele and Liebesny, the adoptee sued the adopter, not the adopter's heirs, for the land. However, in this particular instance, an argument on behalf of Mrs. Lewy's view can be made on the ground that this trial goes back to JEN 210, a *mârûtu* without the *ilku* clause. But this case conflicts with what seems to be Mrs. Lewy's view: that the *mârûtu* in general was not sale but investiture.

There is a weakness in the analysis presented by Mrs. Lewy herself, for she compares this action to JEN 363 (=JEN 673), 378, and 373, which are cases in which third parties interfere with the performance of false-adoption or exchange contracts. In all three of these, as

in JEN 371, the judges force the adopter or the transferor to fulfil his warranty to clear the title from such claims. In conveying, especially in conveyances arising from sale, warranty is the rule rather than the exception not only in Nuzi but elsewhere in Mesopotamia, Rome, and continental Europe.

Warranty at Nuzi is what Mrs. Lewy designates as the *pagirânu* clause. But she alleges that its purpose is to prevent feudal land from being transferred to third parties as security for debt. This theory is based on Articles 36, 38, and 71 of the Code of Hammurabi, which forbid the sale of *ilku* land by royal officers to whom it had been granted. Article 38 forbids such title-holders to give *ilku* land for debt; article 71 prevents alienation of *ilku* land and compels the purchaser to return such land to the vendor.

Mrs. Lewy claims that the Nuzi trials in question conform to the Old Babylonian practice just outlined; that, in other words, the royal officer was suing for feudal land title to which had been transferred as security for debt to a third party and had been taken in possession by such third party. So far an Old Babylonian precedent for crown seizure of *ilku* land under such circumstances is lacking. Furthermore, the legislation in the Code of Hammurabi, especially Article 71, does not provide that alienated *ilku* property is confiscated by the crown but that it is restored to the *ilku* holder.

Although JEN 373 apparently arises from a forfeited antichretic pledge or mortgage there is no proof that either JEN 363 (= JEN 673) or JEN 378 does. Third-party claims, to be cleared in accordance with warranty obligations, may be testamentary in origin, as in JEN 333, or they may result from faulty surveying, as in JEN 371. But assignment for debt, with the exception of JEN 373, does not

³⁵ *Orientalia* (N.S.), XI, 225-29. The situation presented by JEN 383 seems to be too complex to be studied here. It can be analyzed only when the full facts are known.

share the pre-eminence indicated in Mrs. Lewy's article. In such cases why should the crown seize property from a fief-holder after going to the trouble of preserving it for him? This concerns JEN 365 and 652 and JEN 384 and 651, which two pairs of cases go back, respectively, to JEN 586 and JEN 244, both of which are false adoptions with the *ilku* clause. If then, the alleged interference of the crown did not exist, another attempt must be made to determine the fundamental nature of false adoptions with the *ilku* clause.

Although the writer believes that false adoptions containing *qistu* are conveyances arising from sale of land, he agrees that those containing both *qistu* and the clause imposing *ilku* charges on the adopter are somewhat different. As Mrs. Lewy shows with regard to JEN 208 and JEN 369, the land concerned remains in the possession of the adopter's family;³⁶ for the sons of the adoptee sue the son of the adopter for it. The defendant loses because he failed to cultivate the land involved in JEN 208, the false adoption with the *ilku* clause.

Now Mrs. Lewy believes that *išpiku* and *ilku* are the same. According to her, the adopter was enfeoffed of the land concerned in JEN 208 and was enjoined to pay *ilku* to the crown through the adoptee or crown officer. In JEN 369 the alleged feoffee neglected to do this and was punished by the members of the official family who confiscated the estate and assessed damages.

The writer, for one, believes that the terms *išpiku* and *ilku* should be distinguished. As a matter of fact, there does not seem to be any confusion between the two terms in the Nuzi tablets. If the two terms were equivalent, one would expect them to replace each other occasionally, as synonymous terms generally do. As

Mrs. Lewy observed, the payment of *išpiku* or crop yield, broadly speaking, is usually made by those adopters who agreed to bear the *ilku* charges. Nevertheless, there is no real proof that the two charges are identical.

As the writer understands the situation, the outlines of the problem become clearer upon distinguishing between transfer of title and transfer of possession, the two important elements in land transfer in most legal systems. The false adoption is, broadly speaking, a conveyance or a transfer of title, but a conveyance does not necessarily involve a transfer of possession. The general run of second-generation *mārātu*'s without the *ilku* clause seem to be contracts for the sales of land and hence suggest ultimate transfer of possession. Furthermore, the *mārātu*'s embodied in declarations before judges and *halzuhlu*'s seem to have been conveyances in which transfer of possession is suggested by renunciation of claim on the part of the original owner. On the other hand, second-generation *mārātu*'s with the *ilku* clause seem to be merely transfers of title which excluded transfer of possession. The seller, who became the adoptive father, indicated his right of occupancy by bearing *ilku*, a charge exacted by the state, but he also had to pay the owner a certain percentage of the harvest or annuity, and this was *išpiku*. Some light on the nature of this system is afforded by JEN 160 and JEN 18, 381, and 405—all of which concern the same piece of property. JEN 160 discloses that Ehli-teššup and Unap-tae, sons of Wantija, and Puitae, son of Uita, were heirs to some property that Uita had conveyed by false adoption to a woman named Mattija; but JEN 18 and 405 (identical tablets) show that she had adopted Tehip-tilla, son of Puhi-šenne, i.e., reconveyed her holdings, including the property in question, to him on the

³⁶ *Orientalia* (N.S.), XI, 19-20.

condition that he would support her in his house. Therefore, the heirs of the adopter of Mattija, who had in turn adopted Tehip-tilla, had to assume toward the latter the obligations which they had formerly owed to her. The novation is effected by JEN 160, wherein Ehli-teššup, Unap-tae, and Pui-tae simply say they will bear *ilku* for that property and renounce their claim to it as against Tehip-tilla. This is a quitclaim declaration made before *halzuhlū* and judges.³⁷

The adoptive contract between Mattija and Uita has not been found, but inferentially it must have been one in which Uita or his heirs were to retain physical possession; as it is made probable by his assumption of the *ilku* charges. Evidence of this sort of arrangement in which Mattija gained an income from land bought but not occupied by her is provided by JEN 381, a law suit in which Mattija is the plaintiff and Ehli-teššup, son of Wantija and heir of Uita, is one of the defendants. Apparently there was established for Mattija a storage bin for the share of harvest allotted to her. This was poured in for her by men designated as *tamutu-men*,³⁸ who seem to have been inspectors. When Mattija's share of barley was poured in, the *tamutu-men* closed the bin and affixed their seals. Ehli-teššup and a certain Mušūja, son of Akiya, broke the seals, were caught, and were forced to give eleven *imēr*'s of barley for the theft and had to give one ox to her for breaking the seal.

The law suit just discussed suggests that JEN 160 was drawn up as a continuation of a previously existing arrangement, further insight into which is afforded by JEN 474, a *tamgurtu* concluded

³⁷ It is to be observed that Tehip-tilla is not a *halzuhlū*, although he is concerned in the transaction. This gives rise to the surmise that the office of *halzuhlū* may have been only a temporary one without the importance imputed to it by Mrs. Lewy in *Orientalia*, XI (N.S.), 5-15.

³⁸ JEN 381:6, 12.

between the same parties concerned in JEN 160.³⁹

Included in the seven *imēr*'s of land conveyed to Tehip-tilla by Mattija in JEN 18 and 405 are the five *imēr*'s and eight *awihari*'s concerned in JEN 160. The *išpiku* of this land the families of Wantija and Uita first rendered to Mattija, and the claims thereto were transferred, as we have seen, to Tehip-tilla. JEN 474 discloses that, in addition to the five *imēr*'s and eight *awihari*'s of land, there were three *awihari*'s released to the sons of Wantija and Uita.

This permission that the alienor keep some land for his own use is paralleled by JEN 208, a *mārātu* with the *ilku* clause which is the subject of a dispute in JEN 369.⁴⁰ These two documents reveal that, of the two *imēr*'s and three *awihari*'s, one *imēr* could be reserved for the adopter. As for the remaining one *imēr* and three *awihari*'s, its crop or *išpiku* had to go to the adoptee. If the adopter or his issue could not or would not raise the *išpiku*, the adoptee or his heirs could evict him and take over the whole property, including the land exempt from *išpiku*, together with arrears in *išpiku* deliveries.

The writer does not disagree with the facts that Mrs. Lewy has reported, but he feels unconvinced of their interpretation. It seems strange that in such an early stage of social advancement a royal

³⁹ I. e., Tehip-tilla son of Puhi-šenne, on the one hand, and Ehli-teššup with Unap-tae, sons of Wantija, and Pui-tae, son of Uita, on the other. Line 4 of the JEN copy has *pu-i-ta-e mār te*-. . .]. Unfortunately, collation of the original is impossible, since the passage in question is broken. The writer, in view of the accompanying texts cited in connection with this one, prefers to read *pu-i-ta-e mār ul-i-ta*.

Steele in *NRET*, p. 17, inclines to the belief that *tamgurtu* is a general term for "contract." Such is not the case, for *riksu* is the general term. A *mārātu* contract is called a *riksu*, e.g., in JEN 385:36, 390:13, 22. The term *riksu* is also applied to a *šupēltu* in JEN 668:8. The *tamgurtu*, as the etymology shows, is a mutual agreement. In Nuzi it seems to be used in the settlement of miscellaneous affairs, for which general standard forms of contract were not applicable.

⁴⁰ Discussed by Mrs. Lewy in *Orientalia* (N.S.), XI, 19-20; *ibid.*, X, 216-18.

official would have to resort to evasion in order to enforce a royal statute, especially when Šamaš-ḥašir, the land administrator of Hammurabi, did not resort to legal fiction in carrying out his duty. The medieval parallel suggested by Mrs. Lewy does not seem to hold, for reinfodation took place before the principle of heredity was established.

When one party takes title to the land in exchange for a *qīštu* and allows the other party to remain in possession, exacting from the latter produce from the land, we have a close parallel to a mortgage or hypothec in common use today. That is to say, the loan is secured by a transfer of title to the creditor, while the debtor remains in possession of the land, using a portion of its produce to pay interest and, in all probability, to amortize the loan as well. This differs from the *titennūtu*, the other well-known type of security transaction at Nuzi, which is not a mortgage according to the present use of the word, but, when applied to land, is the antichretic pledge or mortgage in its old, original sense. In this Nuzi brand of antichresis, the creditor is given possession of the land as security and works it in order to derive interest. However, in a *titennūtu* transaction, the creditor did not acquire title.⁴¹

To return to the problem under discussion, namely, the *mārūtu* with the *ilku* clause, which was a credit rather than a sale transaction, the writer will illustrate its operation by recourse to the summary of Professor Rheinstein, without whose counsel the writer would have been misled into associating all false adoptions at Nuzi with sale alone.

⁴¹ For a fuller discussion of the *titennūtu*, see Part V. As will be shown there, title to a defaulted antichretic pledged during the early part of the Nuzi period was given to the creditor by a separate *mārūtu*. As *HSS*, V, 56, for example, shows, the creditor could force the debtor to sell the pledged land to a third party who would pay over the *qīštu* or part of it to the creditor as satisfaction for the debt.

Concerning the documents just discussed above, Professor Rheinstein states: "The whole story points definitely in the direction of a credit transaction. Farmer Uita receives a loan from Mattija; as security he conveys title to her, but retains possession and promises to pay part of the crop as interest. Mattija assigns her claim to Tehip-tilla and conveys to him her security title. The heirs of Uita, by novation, promise Tehip-tilla that from now on they will treat him as creditor and owner of the security title. The case seems to be a typical illustration of the world-wide institution of *fiducia cum creditore transacta* combined with a promise of paying interest for the loan." In JEN 474 it is shown that some of the land is released to the heirs of Uita. This seems to indicate, so Professor Rheinstein informs the writer, that part of the loan had been repaid.

Naturally the eviction cases reported by Mrs. Lewy probably deal with proceedings against debtors failing to pay interest.

An interesting feature about these mortgages is that the value of the *qīštu* is about the same as in false adoptions without the *ilku* clause⁴² which, according

⁴² *NRET*, Table 2, pp. 69-71. False adoption sales of land treated by Steele which do not have the *ilku* clause are JEN 1, 5, 7, 21, 44, 47, 51, 53, 56, 63, 64, 70, 71, 72, 73, 75, 80, 86, 88, 94, 95, 99, 106, 122, 145, 149, 153, 171, 175, 180, 202, 207, 210, 211, 217, 283, 361, 408, 418, 422, 476, 479, 481, 556, 579, 580, 581, 593; *HSS*, V, 62, 64, 75; *HSS*, IX, 113; and *RA*, XXIII, 44. The aggregate average value per *imēr* in these sales is 11.4 shekels of silver. The false adoptions with the *ilku* clause that are included in Steele's table of land values are JEN 3, 4, 11, 12, 13, 22, 23, 25, 27, 28, 30, 31, 33, 34, 36, 37, 38, 40, 41, 43, 45, 48, 49, 52, 54, 55, 57, 62, 67, 85, 91, 92, 93, 201, 208, 219, 409, 415, 416, 419, 421, 423, 425, 426, 585, 586, 590, 594, and 601 and *HSS*, V, 20. The aggregate average value of an *imēr* of land in these is fairly much the same; for it is 12.4 shekels of silver, a figure slightly higher than the 11.4 shekels in land concerned in the false adoptions without the *ilku* clause. The higher figure for the *ilku* land may be the result of circumstance. However, though the *mārūtu*'s with the *ilku* clause may not have been sale transactions, Steele's inclusion of them in his table of land values does not materially affect his results in the main, since the loan was often equivalent to the value of the land.

to the conclusions reached above, are probably sale transactions. In other words, money was loaned up to the market value of the security. As we shall see in Part V, this procedure was not followed in the *titennātu* transactions where the loan was a fraction of the market value of the land placed as pledge for the security.

Unlike the false adoptions without the *ilku* clause, those which contain it contain another feature, during the second generation at least, as far as the payment of the *qīštu* was concerned. The majority of second-generation *ilku* false adoptions include among the witnesses men who were called *nādinānu*; others list those witnesses who give the *qīštu* or who measure it out. Often a *qīštu* receipt is made by the adopter in later *ilku* false adoptions. The inference to be gathered therefrom is that payments for the most part were immediate. There are some *mārātu*'s of the late Nuzi period in which the *qīštu* is paid on the spot through the medium of the *nādinānu*'s, but which contain no *ilku* clause. They may be security-transactions, but by this time *ilku* payment may have been so well established that mention of it became unnecessary.

V

The Nuzi tablets which are entitled *tuppi titennātu*⁴³ are antichretic pledge

⁴³ The etymology of which is a controversial subject, since attempts have been made to construe it as being of exclusive Akkadian origin. See Schell, *RA*, XV (1918), 66, n. 1; Gadd, *RA*, XXIII (1926), 55; Koschaker, *NKRA*, p. 131, n. 22; Speiser, *JAOS*, LIII (1932), 357-61. Koschaker later in *RORH*, p. 87 and n. 1, feels that the word *titennātu* is Hurrian in origin affixed with an Akkadian ending. This interpretation is the one preferred by the writer.

Steele in *NRET*, pp. 46-47, places emphasis on the observation made by the writer in *AJSL*, LVII, 171, to the effect that an Akkadian scribe at Nuzi variously spelled the word *ti-te-nu-ti* and *ti-de-nu-ti*. According to rule (see Friedrich, *Analecta orientalia*, XII, 130-31; von Brandenstein, *ZDMG*, XCI, 574; Purves, *AJSL*, LVII, 172-85; Speiser, *Language*, XVI [1940], 326-34; *AASOR*, XX [1940-41], 35-40), the Akkadian scribe would have written *ti-de-nu-ti* if the word were Hurrian throughout. But, on the other hand, since the

loans. The creditor has usufruct rights over real and chattel pledges. This usufruct right enables the creditor to obtain interest and also provides him with a means of forcing the borrower to repay his debt; for, if the debt is not repaid within a specified time, the pledge can be used to fulfil the outstanding obligations of the debtor. However the *titennātu* transfers possession, but not title.

Pledge was not the only form of security to be found in Nuzi. There were also to be found a number of loans secured by a third party acting as a surety.⁴⁴ As we have just seen, loans could also be secured by mortgage. Hence any discussion of loans at Nuzi requires the use of appropriate terminology in order to specify the type of security involved. Employment of the all too general term "security"

same scribe wrote out the word variously, the Akkadian origin is suspect. Steele (*loc. cit.*) believes that the term in question originally came from Akkadian **dītennātu* and was adopted into Hurrian as a loanword. It became Hurrianized, but nevertheless its ultimate Akkadian origin caused it to resist the Hurrian phonetic pattern (for difference of opinion of the writer and Speiser on this rule see writer in *AJSL*, LVIII [1941], 404, n. 122).

As the writer remarked above, he believes with Koschaker that the word is Hurrian with an Akkadian ending. That explains why the scribe wrote final *-ti* instead of *-di*. As for the variation *ti-de/ti-*, it could be Hurrian in view of a new rule to be stated for the first time. Normally intervocalic consonants in Hurrian undergo nonphonemic voicing when single. However, when two similar consonants are separated by a vowel, they both tend to remain voiceless. Cf. the plural ending *-šuš* which occurs in the Mari documents as *-zuš*, as it should according to rule, but more often as *-šuš*. On this see *AJSL*, LVIII, 394. Cf. also the writing *pa-pa-na-šu-uš*, Mari 5:8 in *RA*, XXXVI (1939), 17, instead of the expected *pa-ba-na-zu-uš*; *a-ta-i-ta*, *ibid.*, 1. 5, instead of the expected *a-ta-i-da* or *a-ta-i-da*; and the Nippur name *Ku-up-pi-ta-ti* and *Kup-pi-ta-ti* in Clay, *Personal Names from Cuneiform Inscriptions of the Cassite Period*, p. 101, instead of the expected *Kuppi-tadi*.

In view of these examples of Hurrian forms written by Akkadian scribes, the Nuzi variation *tīd/te-* could be of Hurrian origin. The writer does not feel inclined to derive it from Hurrian *tai*, "to be friendly," as Mrs. Lewy does in *Orientalia*, X (N.S.), 323, n. 1.

⁴⁴ E.g., *HSS*, IX, 68-70, 76-78, 80, 83, 85, 88, 90, in which the surety is termed a *maḫiṣ puti*. For this use of the term see Koschaker, *Babylonisch-Assyrisches Bürgerrecht* (Leipzig, 1911), pp. 215-17, 226-28, which is a most extensive treatment of suretyship in Babylonia and Assyria.

when the term "pledge" is required can lead to confusion and a consequent faulty appraisal of the issues at stake. Steele's treatment of the *titennātu* suffers from the use of faulty terminology.⁴⁵ Although he understands the procedure of pledge⁴⁶—a well-known institution in archaic society the world over⁴⁷—he persists in calling the type of transaction in question a "security loan" but does not specify the type of security involved.

This inexactness betrays some misconceptions. For instance, Koschaker discusses *šapartu*,⁴⁸ the Middle Assyrian word for "pledge," but Steele takes *šapartu* to mean "security" and credits Koschaker with having the same understanding of it.⁴⁹ Inferentially, Koschaker's discussion⁵⁰ of the Nuzi *titennātu* is similarly misunderstood.⁵¹ Somewhat more grave is Steele's peremptory treatment of Cuq's views on the *titennātu*. From reading Steele's summary,⁵² one gathers the impression that Cuq, in the *Journal des savants*, 1927, pages 398–99, understood the *titennātu* to be a form of lease and then later, in his *Etudes sur le droit babylonien*, pages 422–26 (Steele cites pp. 409 ff.), modified his view by considering the *titennātu* to be "gage." Actually in both instances Cuq expressed the same view without any serious modifications. Like Koschaker, he recognized that the *titen-*

nātu was a pledge transaction. But he believed that the creditor held the pledge as a lessor without having title. He was challenged by Koschaker, who claimed that the creditor had proprietary rights and held title to it temporarily at least.⁵³ With the appearance of *HSS*, V, 56, which showed that the *titennātu* contract conveyed no title, Koschaker had to alter his stand. Nevertheless, he was unable to agree with Cuq, since rent in the Nuzi tablets is by no means usual. He therefore concluded that the *titennātu* was the kind of pledge known as the usufruct gage and that the word itself meant *Nutzung*, or "usufruct."⁵⁴

As with the *mārātu* or false-adoption land transfers, Steele's contribution to the study of the *titennātu*, in so far as it concerns realty, lies in his evaluations of loans with reference to the value of the pledge. This comparison in values is made in terms of the silver shekel.⁵⁵ This procedure enables him to establish the fundamental point that the value of the pledge was greater than the value of the loan.⁵⁶ In this connection it is recalled that, in the mortgages in Part IV which involved transfer of title, the security was not greater than the loan in value. In a pledge transaction, the debtor has the right, but not necessarily the obligation, to pay back the debt. Since the pledge was of much higher value, the debtor would

⁴⁵ *NRET*, chap. iv, pp. 46–49, and chap. vi, sec. b, pp. 60–62.

⁴⁶ *NRET*, p. 49.

⁴⁷ For pledge of realty as a system of securing loans among early civilizations the world over see, e.g., J. H. Wigmore, "The Pledge Idea," *Harvard Law Review*, X (1896–97), 321–50, 389–417, and XI (1897–98), 18–39.

⁴⁸ *NKRA*, p. 96 *et passim*.

⁴⁹ *NRET*, p. 61 and n. 27.

⁵⁰ *NKRA*, pp. 131–37.

⁵¹ In *NRET*, pp. 60–62, Steele reveals a complete misunderstanding of the fact that Koschaker, *NKRA*, pp. 131–37, was discussing usufruct pledge at Nuzi, on the one hand, and hypothec or nonpossessory pledge in Assyria (*ibid.*, pp. 96–102), on the other.

⁵² *NRET*, p. 45 and n. 7.

⁵³ *NKRA*, pp. 131–37.

⁵⁴ *RORH*, p. 37. Speiser (*JOS*, LII, 355[n. 22] and 357; *AASOR*, XVI [1935–36], 79, 110–11) challenges the usufruct concept of Koschaker on the ground that this term cannot be applied to capital. The concept "usufruct" implies the right to use and enjoy the produce of a thing without altering its substance. It is well recognized that the same concept can be applied to money or consumable goods. Under this guise it is commonly called "quasi" or "imperfect" usufruct. On these grounds Speiser's criticism is invalid. Speiser's allusion to post-biblical *hazāqāh* (*JOS*, LII, 359) presents some hazards, for it is a doctrine resembling usucaption and has very little connection, if any, with pledge; see "Hāzāqāh" (art.), in *Jewish Encyclopedia*.

⁵⁵ *NRET*, Table 7, p. 71.

⁵⁶ *NRET*, p. 49.

naturally be the loser, should he decide to default.⁵⁷

Koschaker was unable to produce evidence to support his view that the pledgee could have the title. However, there are two instances which confirm Koschaker's view that title could vest in the pledgee upon default⁵⁸ and further disclose the means by which the pledgee obtained the title. This was through the *mārātu* without *qīštu* with the penalty clause stipulating, in addition to pecuniary damages, the blinding of the defaulter in the event of his attempting to break the contract. The first of these two instances is represented by JEN

1. ʔup-pí ma-ru-ti ša
2. ʔšū-ru-uq-qa mār ta-ú-uh-ḫe
3. ʔme-na-a-a mār ip-ša-ḫa-lu
4. a-na ma-ru-ti-šu epuš-ma 1 bitāti^{HI}-šu
5. eqlāti^{PI}-šu dīmta ù ma-ak-ra-a[t-ta]
6. ša li-wi-it dīmti eqlāti^{PI}
7. ma-la i-ba-aš-ša-a ša me-na-[a-a]
8. ma-an-nu ša BAL 1 MA.NA kaspā 1 MA.NA ḫurāša
9. i.LAL.E inīMEŠ ú-ba-t[ù]⁶³
10. maḫar ḫa-an-ku-ia mār ke-en-ni-ia
11. maḫar wa-an-ti-ia mār na-ḫi-a-šu
12. maḫar zi-li-ia mār a-ri-ip-a-p[u]
13. maḫar um-pu-ur-du mār ar-še-né
14. maḫar ar-ša-du-ia mār še-el-la-b[a-i]
15. maḫar bal-du-qa-ši-id DUB.SAR

⁵⁷ In *Orientalia* (N.S.), Vol. X (1941), Mrs. Lewy tried to prove that the *titennātu* was not a pledge loan but an exchange of values producing profits. Steele's ratio of the value of the loan and the value of the pledge or security upsets Mrs. Lewy's alleged "symmetry of values" and hence negates the whole thesis. With regard to self-pledging, in cases where the borrower pledges himself alone for several slaves, it is to be borne in mind that he had the alternative of losing his civil rights and liberty upon default. For an instance of this see *AASOR*, Vol. XVI, No. 29.

⁵⁸ *NKRA*, p. 137; *RORH*, p. 90.

⁵⁹ Speiser's plausible reading *magrattu* and translation "threshing floor" in *AASOR*, X (1928-29), 53 has enjoyed wide acceptance. However, JENu 1028, which gives 2 *imēr's* as the extent of a *makrattu*, and *HSS*, XIII, 417:8, which mentions a *makrattu* of 8 *awīḫari's* in extent, reveal that its area is much too large for it to be considered as a threshing floor. JENu 734 also concerns a *makrattu* of 8 *awīḫari's*. The word in

289, a *titennātu*, and JENu 398, a *ma-rātu*. In JEN 289, Tauḫḫe, son of Šar-rija, pledges 12 *imēr's* of land, his houses and *makrattu*⁵⁹ to Minaja, son of Ipša-ḫalu, for a loan comprising 25 *imēr's* of barley, 27 *mana's* of lead, a donkey, 4 sheep, 2 shekels of silver, and 2 pigs.⁶⁰ The term of loan was ten years, during which Tauḫḫe presumably died, leaving his property to his son Šurukka, who apparently found himself unable to pay back the loan when due. He is then forced to convey the pledged property to Minaja in JENu 398, a false adoption, of which the transliteration and translation are the following:

Sonship tablet of
Šurukka son of Tauḫḫe,
Minaja son of Ipša-ḫalu
he has made into sonship and one compound
his fields, *dīmtu*⁶¹ and *makrattu*⁶²
which are along the *dīmtu*, the lands,
as much as there are, (are) Minaja's;
whoever transgresses one *mana* of silver
one *mana* of gold
shall weigh out and (his) eyes they shall
destroy.⁶⁴

Witnesses and scribe

question is apparently an adjective applying to a type of land. For the time being its etymology and meaning remain to be determined.

⁶⁰ The passage covering these items in JEN 289 is damaged, but restoration is possible after comparison with JEN 517.

⁶¹ For *dīmtu* "tower," see Mrs. Lewy, *Orientalia*, XI, 3, n. 1, and the cited literature.

⁶² See n. 59 above.

⁶³ The final sign, although partly damaged, is unmistakably *du* or *ti*.

⁶⁴ The physical penalty involved is blinding. This recalls JEN 449:13, 452:7-8, and 457:11-12, which impose blinding on people entering into slavery should they attempt to run away or renounce their status as slaves. The same situation seems to be reflected in JENu 398 (below); see n. 66.

Here this provision occurs in a property transfer arising from a defaulted loan. Apparently the implica-

Thus a valuable piece of property is forfeited because of an unpaid debt approximately amounting to a *mana* of silver. It is to be observed in this *mârûtu* that the land is not given as an inheritance share as in the normal *mârûtu*, and that no *qîštu* is given for it, the forfeited pledge in JEN 289 being considered as compensation.

The second instance is likewise portrayed by a *titenûtu* and a *mârûtu*. The *titenûtu* in this case is JEN 291, in which Nui-šere, son of Eteja, pledges four *imêr*'s⁶⁵ of land to Hašija, son of Waḥr-api for forty *mana*'s of bronze, which is worth only six shekels of silver. There is no term, it being stated that Nui-šere would regain possession of the land when he returned the bronze.

In the course of time Hašija died, and his son Mušeja found that Nui-šere and his brother Tiwirra were not solvent, a condition made only too clear in the *titenûtu* JEN 301, in which Tiwirra is forced to pledge himself and his sons into service in the house of Mušeja for four talents and twenty *mana*'s of bronze. The upshot

was that the four *imêr*'s of land pledged in JEN 291 had to be formally conveyed in the *mârûtu* JEN 39. In this *mârûtu* the four *imêr*'s were given over as *qîštu*, not as *zittu* or inheritance share. Again the alienee gives no *qîštu* payment, for that was covered in the forfeited loan in JEN 291. In addition, there is a physical penalty presumably stipulating the blinding of the defaulter.⁶⁶

The harsh treatment of defaulting debtors during the early period as disclosed by JEN 289, JENu 398, and JEN 39 and 291 is probably attested by JEN 552 also. In this last-mentioned text Puḫi-šenne, son of Turi-šenne, and father of the well-known Teḫip-tilla,⁶⁷ acquires some land from three brothers for a shekel of gold and conveys it to the infant sons he had by his wife Winnirke. The land included fields and an orchard in the vicinity of the city Nadmanne. This text is damaged, but certain traces on line 19, not represented in Chiera's copy, and other remnants make the whole document clear. The transliteration and the translation are as follows:

1. mpu-ḫi-še-né mâr tu-ri-še-né
2. l šiqḷa ḫurāši I.RA.NA
3. a-na ú-na-ap-ta-e
4. a-na al-bu-ia
5. a-na a-ri-ma(!)-at-qa
6. 3 mârê⁶⁵ ḫa-nu-ia it-ta-ad-na-šu-nu-ti-na
7. l ma-a-at imêr eqlāti⁶⁶
8. [a]-šar' m[âre⁶⁵] ḫa-nu-ia il-te-qè
9. ù 'pu-ḫi-še-né' 'a-na' mârê⁶⁵-šu
10. [š]-ḫi-ru-t[ī] šja 'mi-ni-ir-ke
11. eqlāti kira i-na na-ad-ma-né ittadin

Puḫi-šenne son of Turi-šenne
one shekel of I.RA.NA gold
to Unap-tac
to Alpuia
to Arim-matka
three sons of Hanuia has given and
one hundred *imêr*'s of land
he has taken from the sons of Hanuia
and Puḫi-šenne to his sons,
minors (borne by) Winnirke
has given lands (and) orchard in Natmanne

tion is that the defaulter had lost his status as a free man and had descended to that of a quasi-slave. It seems as if he was now destined to work his property not for himself but as a "serf" for the pledgee to whom title was transferred.

⁶⁵ On l. 3 of the JEN copy the three *imêr*'s of land is incorrect. Collation of the tablet discloses that four *imêr*'s were involved.

⁶⁶ The last part of l. 9 on JEN 39 is defectively copied, for what is represented as *še* is actually *i*. The writer restores and reads ù 'i-na'a-šu i-ba-ti], "and his 'eye's they shall des[troy]." This reading is made on the basis of JENu 398, for both were drawn up under the same conditions. For the implications see n. 64.

⁶⁷ See *AJS*, LVII, 164.

This deed is concluded by the list of witnesses and scribe, and it also bears a seal impression without name which was later used by Tehip-tilla.⁶⁸

This document was treated by Mrs. Lewy, who considered it evidence for the existence of outright sale of real estate at Nuzi.⁶⁹ In the study under review, Steele also treated JEN 552 and likewise concluded that it was a sale.⁷⁰ He noticed some difficulty, however; for here a hundred *imêr*'s of land are taken by Puhišenne for a shekel of gold. According to Steele's calculation,⁷¹ this would equal 9 shekels of silver or 0.09 shekels of silver per *imêr*, an absurdly low price, especially for the older period, when the price varied between 20 and 60 shekels per *imêr*.

To solve this difficulty, Steele makes a rather arbitrary reading of JEN 552:7, which gives the dimensions as 1 *ma-a-at* ANŠU A.ŠA.ĜA, which, for reasons which he does not state, he finds "paleographically questionable" and reads 1 *ma-at* (sic!) 20 ĜIR A.ŠA(G).ĜA.⁷² Emendation of the sign ANŠU as 20 ĜIR seems far-fetched, for 20, when written "PA," stands not for the cardinal numeral 20 but for 20 *qa*. HSS, V, 81, and JEN 550, which Steele cites for comparison to show that 120 ĜIR is synonymous with *imêr*, gives both dimensions, whereas in JEN 552, following Steele's reading, only one dimension would be given. Besides, there are no difficulties paleographical or otherwise⁷³ with the reading 1 *ma-a-at* ANŠU A.ŠA.ĜA and translating "100 *imêr*'s of land."

All this brings us back to the begin-

ning, namely, as to why 100 *imêr*'s went at the low figure of 0.09 shekels per *imêr*. When land goes for a low sum, especially in the early period, the chances are that there is no question of outright sale, but rather a forfeiture. Under the circumstances JEN 552 would seem to be a deed accessory to a *titennātu* forfeiture or to some other kind of default.⁷⁴

As the writer once suggested,⁷⁵ JEN 552 is perhaps the oldest known tablet in the Tehip-tilla archives, if not the oldest of the Nuzi texts as a whole. It was probably drawn up before the *mârûtu* formula was devised as a formality for conveyance. Since outright alienation was forbidden, some stop-gap remedy was necessary. This stop-gap seems to have been supplied by JEN 552, for Puhišenne, instead of retaining the property that he had taken, passed it on to his sons who were designated as *šihirûti*, i.e., infants or minors. Herein probably lies the evasion of rules barring alienation; for minors at Nuzi, as elsewhere, presumably had certain protection from legal action. If the writer's appraisal is correct, certain difficulties of this procedure become apparent. For instance, the minors could be

⁷⁴ The problem in all likelihood could be solved if the word or phrase expressed by I.R.A.NA on l. 2 could be ascertained. The writer proposes a tentative interpretation which will have to stay in abeyance until future findings confirm or reject it. I.R.A.NA may stand for Sumerian *ir-ani-a* which became *ir-an-a*, literally meaning "for his going" and corresponding to Akkadian *ana ilkišu*, "for his *ilku*." If such a formula did exist, it should have been written I.R.A.NA or IR(DU).A.NA. However, cf. G.A.RE (KAJ 13:26), which, so Dr. Thorkild Jacobsen suggests to the writer, was probably meant for G.A.R.E.

If the writer's suggestion should prove correct, JEN 552:2 would be 1 *šigla ħurâši ana ilkišu* or *ana ilki*. This would imply that the original owners of the property were so stricken financially that they were not able to support even the land charges due to the crown and had to surrender their holdings to Puhišenne, who was in the position to bear *ilku* in their stead.

⁷⁵ See the writer in *AJSL*, LVII, 168, n. 25. Naturally, the writer renounces the belief he expressed there to the effect that JEN 552 was an outright sale of land.

⁶⁸ *Ibid.*

⁶⁹ *JAOS*, LIX (1939), 119.

⁷⁰ *NRET*, p. 38.

⁷¹ *NRET*, pp. 34 and 38.

⁷² *NRET*, p. 38.

⁷³ In fact, the ANŠU sign is identical with the one occurring in JEN 563:1, where it cannot be construed as anything else but the ideogram for *imêr*.

sued upon their reaching majority. If this is so, JEN 552 would make an imperfect conveyance, since it does not specify rights of inheritance which, at Nuzi, apparently constituted the prime claim to title.

Under these circumstances, the creation of the *mārātu* formula as a standard form for conveyance must have been most welcome. However, at the outset, it was undoubtedly necessary to distinguish the false adoption for the transfer of title by inheritance from real adoption. This undertaking was amply and carefully accomplished in JEN 404, which must have been drawn up not much later than JEN 552. That both tablets came from the early part of the first generation may be gathered from the fact that both contain the names of people occurring in other first-generation tablets but which do not survive into the second generation.⁷⁶

Very soon the necessity for expressing clauses distinguishing the false adoptions from the real adoptions must have become superfluous, after land-conveyancing became general practice. The gradual disappearance of the distinguishing clauses may be traced in JEN 414, which comes later, for it contains the names of Akija, son of Ezittiija, and Huija, son of Hašija, who reoccur in JEN 234:12 and JEN 42:16, respectively, which were written in the second generation. JEN 414 contains fewer stipulations than JEN 404 to serve as provisions freeing the adoptee from the obligations he would have to ful-

⁷⁶ Anupirra son of Warad-biti, JEN 552:13, appears elsewhere only in JEN 647:14, which is a tablet of Winnirke and therefore belonging to the first generation. Ilu-ēriš, son of Danna-tašši, JEN 552:18, finds its only other occurrence in JEN 404:28, 40, the early tablet under discussion. The scribe Amurru-šarr-ili, JEN 552:12, is the scribe who probably wrote JEN 414 (see l. 25 of the text and *AJSL*, LVII, 165, where his name is read "Amurru-šar-ilāni"). The changed reading accords with what is given in *NPN*. No other occurrences of people mentioned in JEN 404 and 552 are to be found.

fil in real adoption. Not much later, even these were not necessary, for they are totally lacking in other first-generation false adoptions used to convey real estate in sales which come from the first generation.⁷⁷

The economic conditions making for the creation of the false adoption may have arisen from the fact that some landholders, being impoverished, were unable to make a living from the royal grants which they were forbidden to abandon. They may have found the adoption a means whereby they could convey away unwanted property, thus alleviating hardship. The economic factors underlying these circumstances remain to be determined.

Pledging of real estate as a widespread institution in early Mesopotamia is attested, *inter alia*, by the very important *esip-tabal* tablets from Susa⁷⁸ which go back to the Old Babylonian period. This type of transaction forms the subject matter of paragraphs 49-51 in the Code of Hammurabi. Elsewhere during the Old Babylonian period, there are tablets reported by Cuq and Koschaker⁷⁹ which, though few in number, form worth-while comparison.

It is to be regretted that Steele's comparisons do not include any of this ma-

⁷⁷ However, JEN 8 of the second generation contains such distinguishing features. This *mārātu* differs from the others like it in that it contains the *ilku* clause. Presumably, this text comes from the early part of the second generation when conveyances of the type discussed in Part IV were at their beginning. If JEN 8 is among the very first of the "mortgage" *mārātu* contracts as apart from those which were contracts for sale, the appearance of the older formulas as distinguishing features is understandable. When "mortgage" adoptions became current, the insertion of the old formulas would, of course, have gradually become unnecessary.

⁷⁸ See V. Scheil, *Actes juridiques susiens*, *Mémoires de la Mission Archéologique de Perse*, Vol. XXII (1930), Nos. 86-118. For discussion see Cuq, *RA*, XXVIII (1931), 62-64; *Etudes sur le droit babylonien*, p. 423; Koschaker, *ROH*, pp. 90-98.

⁷⁹ See Cuq, *Etudes sur le droit babylonien*, pp. 310-38; Koschaker, *ROH*, p. 94, n. 5.

terial for comparison with the Nuzi *tittenûtu*. The only comparative material taken into account is confined to Middle Assyrian mortgages. But here Steele makes a noteworthy observation, namely, that, on the average in the Assyrian loans, the borrower obtained on the same amount of security a capital seven times as great as the borrower in Nuzi. Also to be observed is the short term of the Assyrian loans selected by him as opposed to the long-term transactions in the Nuzi antichretic pledge transactions.

Such a marked disparity must result from circumstances more far-reaching than "the absence of any uniform rate among the individual contracts of either area," as Steele puts it.⁸⁰ Koschaker suspects that the Middle Assyrian mortgages were governed by the principle of hypothec, rather than antichresis,⁸¹ as in the *tittenûtu*. In the Assyrian hypothec the creditor does not take possession of the security while the debtor is solvent. He has only a nonpossessory security interest in it. In fact, the hypothec is more or less like the present-day mortgage. As Koschaker showed, in several Middle Assyrian transactions the security is not taken into possession by the creditor except upon default at the end of the term of the loan. Elsewhere Koschaker suggests that current interest was deducted from the loan at the time that it was made with the result that the borrower had to return more than he originally received.⁸² In the antichretic Nuzi *tittenûtu* contracts the creditor derived interest from use of the pledged land.

Thus it is that Steele may be comparing two unlikes: antichresis at Nuzi with what in Aššur may actually have been hypothec. Hence the difference in ratio between the loan and the pledge in the

two localities; for, in antichresis, the creditor takes over the pledged land and derives interest from its produce. He has to bear the production costs, and these expenses naturally cut down his profit. So small was the net profit that he had to work the pledge land for several years before he could accumulate customary interest rates.

In the Assyrian hypothec, where the interest was probably deducted by the creditor upon making the loan, to be realized when the principal was returned, the creditor has no operating expenses to bear to derive principal and interest. Therefore, he could lend more than he could on an antichretic gage. The transaction could be a short-term one, for interest was realized upon the return of the loan by the debtor.

That antichresis could take place in Aššur is attested by *KAJ* 13.⁸³ This text only differs from the Nuzi real estate *tittenûtu* in form and vocabulary. Essentially there is no difference between the two. So obvious are the functional similarities, that one is surprised that Steele omitted any mention of it. *KAJ* 13 is long-term, for repayment is stipulated for six years. It is antichretic, for it is specifically stated that the creditor will hold and cultivate the engaged land and that there is no interest on the metal given as a loan. Finally, there is the pecuniary similarity. In *KAJ* 13 the gage is 9 *iku*'s of land including an *iku* of orchard with a well; the loan is 40 *mana*'s of lead to be repaid at the end of six years. This means that the loan covered 0.74 *mana* of lead per *iku* per year, which, when converted in accordance with Steele's figures, would be equivalent to 0.22 shekels of silver per *iku* per year. This is lower than the 0.96 shekels per *iku* per year deduced by Steele and

⁸⁰ *NRET*, p. 61.

⁸¹ *NKRA*, p. 99.

⁸² *NKRA*, pp. 94-96.

⁸³ Discussed by Koschaker, *NKRA*, p. 108, and transliterated with translation, *ibid.*, pp. 160-61.

would correspond to 1.1 shekels per *imêr* per year at Nuzi.⁸⁴ Since orchard land is included also, the rate is somewhat lower. But even when taken at face value, 1.1 shekels is equal to or lower than the amount loaned per *imêr* per year in many *titennûtu* loans.⁸⁵ However, since the land in *KAJ* 13 had improvements which made its value even greater, this document certainly attests that the same ratio between the value of the pledge and the loan prevailed in antichresis at Aššur and Nuzi. In this manner Steele's computation of land values at Nuzi receives confirmation by comparison with outside sources.

With the aid of the material presented

⁸⁴ *NRET*, p. 60, n. 26.

⁸⁵ Cf. *JEN* 296, 300, 315; *HSS*, V, 84, 88; *HSS*, IX, 102, 105; *RA*, XXIII, 47.

by Mrs. Lewy and Steele's computations of land values, it has been possible to evaluate Nuzi material with greater precision. This evidence has led the writer to consider false adoption as a conveyance or a means to transfer title with sale as one of its functions, but not the only one. The declarations in court concerning both false adoptions and land exchange apparently assume the guise of releases akin to quitclaim deeds. Thanks to Professor Rheinstein's invaluable assistance, it has been possible to identify second-generation false adoption with the *ilku* clause as mortgages instead of sale transactions. With these new contributions to the study of Nuzi real estate law, the stage is set for new discoveries in the vast material awaiting elucidation.

Care of ORIENTAL INSTITUTE

"PROFIT" IN ECCLESIASTES

W. E. STAPLES

THE aim of the author of Ecclesiastes seems to have been to discover objectively the purpose of life in so far as man is concerned. In the course of his discussion he seeks to narrow his problem by eliminating certain elements which may be considered by the less discerning as constituting a goal for human endeavor. He begins his dissertation with the remark that everything is entirely incomprehensible to man—that it is quite impossible for man to understand the world or its workings. This remark is so beautifully vague and general that those who read it could accept it without any great difficulty. The author's next remark, however, brings that vagueness into clearer focus. He states rhetorically, yet no less emphatically, that "profit" in exchange for toil does not exist. If our author can narrow his researches by the elimination of profit as a goal for human endeavor, he has progressed in his search for the truth, negatively at least.

Now, profit was a thing fully understood by his contemporaries, whether they labored in the mercantile, agricultural, or religious fields of endeavor. To them it was the motivating force behind all activities and the thing that made their lives understandable. Such a remark, if sustained, would deprive the reader of the very underpinning of his existence. Unless a return greater than the investment involved could be expected, there could be no purpose for that investment. Without the possibility of a return of thirty fold, sixty fold, or a hundred fold on the seeds planted, the famous parable of Jesus would have had no meaning for his hearers. Without the promise of a good reward in return for keeping the laws of Moses,

those laws could have had no attraction for the Israelites. To deny the existence of profit was certainly an excellent method of emphasizing the incomprehensibility of the world and all its workings.

Had our author consistently insisted that "profit" in relation to human activities did not exist, we would be forced to conclude that he held a somewhat novel view, and there let the matter rest. When, however, he later infers that "profit" does exist, we are forced to seek a solution for the enigma. There may be several explanations of this phenomenon. We may conclude that our book has been edited by later scholars who held views radically different from those of the original author, that our author was human enough to be extraordinarily inconsistent—at one time proclaiming the orthodox view that "profit" existed and at another time the startling opinion that it did not exist—or that these discrepancies in consistency are more apparent than real.

A closer study of the use of the words for "profit" in Ecclesiastes points to the conclusion that our author uses the same word to define a given element from different angles. When this fact is realized, inconsistencies largely disappear.

The Hebrew word used to express the idea of "a return over and above an investment," i.e., "profit," is *yithrôn*, an abstract form derived from *yāthār*, "to remain over." The *Kal* participle *yôthēr* and the derivative *môthār* are also used with similar force.

"YITHRÔN" USED IN AN ABSOLUTE SENSE

In 1:3 *yithrôn* is noted as being non-existent. What *yithrôn* has a man in exchange for all his toil at which he toils

under the sun? It is a rhetorical question and plainly asserts that man's labor nets him no return whatever. The following verses were intended to amplify this thesis. The author notes the succession of the generations of man along with the succession of the circuits of the sun, wind, and rivers, all of which have endured since creation. He notes that, though these have carried on their allotted tasks since time began, they have added nothing to the world. Why, then, our author suggests, should a single man expect to obtain a profit from his few short years of toil more than the sun, wind, or rivers in a single circuit of their allotted course?

Verse 10 reiterates the author's thesis in regard to a lack of profit, for a new thing would be indicative of profit: "There is nothing new under the sun." If previous generations or ages had left a record of the incidents which occurred in them, man would recognize that the thing "new" to him had existed in previous ages. Since such is not the case, man may think that he has discovered something new, whereas in reality he has not. Other passages in which this word is used in this absolute sense are: 2:11, "when I again examined everything which my hands have accomplished and the labor which I carried out laboriously, lo, [I discovered] everything was incomprehensible, and a striving of the spirit, there being no *yithrôn* under the sun"; 3:9, "what *yithrôn* has the doer in return for that at which he toils?" 3:19, "man has no *môthār* over the beast"; 5:15, "this too is a discouraging evil, exactly as he came, so shall he go, therefore what *yithrôn* has he who toils for the spirit?" 2:15, "since the likeness of the fate of the fool will befall even me, why do I act with wisdom, there being no *yôthēr* (*ʔēn yôthēr*)"; 6:8, "What *yôthēr* has the wise man over the fool, what has the poor man who knows how to walk before the living (i.e., the

poor wise man)?" and 6:11, "Since words greatly increase confusion, what *yôthēr* has man?"

It seems to me that Ecclesiastes would explain the absence of profit in the absolute sense somewhat as follows: the world is directed in its every move by God according to the timetable of events of previous ages. Since man is a creature of God, exactly as the sun, wind, and rivers are creatures of God, man must needs carry out the will of the deity just as the phenomena of nature must do his will. Hence the works of man as well as the works of the natural forces are the works of God. According to Ecclesiastes, the *rûah*, which is the great motivating force in man, comes from God, even before birth (11:5), and at death returns to God who gave it (12:7); man has no power over it; it forces man to strive even against the judgment of his experiences. It would be through this medium that God directs the activities of man. Hence whatever man does is the work of God. Fool and wise man, good and evil, he who makes a vow and he who does not make a vow, all behave according to a divine plan, and hence *yithrôn* in the absolute sense is out of the question.

"YITHRÔN" USED IN A RELATIVE SENSE

On the other hand, there are passages in which our author speaks of "profit" as an actuality: 2:13, "I noted that wisdom had a *yithrôn* over folly like the *yithrôn* of light over darkness" (this idea is expanded by the following proverb: "The wise man's eyes are in his head, while the fool walks in darkness"); 5:8, "The *yithrôn* of the land is, in general, the chief purpose of the tilled field"; 7:11, "wisdom is good in the time of sickness (or, with an inheritance *naḥalâ*), and a *yôthēr* for those who see the sun"; 7:12, "The *yithrôn* of knowing wisdom is that it keeps its owners alive";

10:10, "If the ax be dull, and one does not whet the edges, he must exert greater strength; the skilful use of wisdom is a *yithrôn*"; and 10:11, "If a serpent bite before charming, the charmer has no *yithrôn*."

According to the former series of passages, there was no profit; according to the latter ones, the possibility of such is very real. According to the former, the activities of man were all directed. From the use of the word in the latter passages we may conclude that man could choose his own line of conduct—that one line of conduct brought definite rewards over and above those of another line of conduct. On the face of it, these two uses of the word would seem to be irreconcilable.

"TÔBH" SYNONYMOUS WITH "YITHRÔN"

Ecclesiastes uses the word *tôbh* just as he uses *yithrôn* and its cognates. In 2:3 we find the following: "To the end that I may see what is the *tôbh* of mankind which they may accomplish under the sun during their brief span of life" (cf. 6:12). With this usage compare 3:9, "What *yithrôn* has the doer in exchange for that for which he toils." Both *yithrôn* and *tôbh* are used in suggesting comparisons: 3:19, "Man has no *môthâr* over the beast"; 6:8, "What *yôthêr* has the wise man over the fool?" 2:13, "Wisdom has a *yithrôn* over folly like the *yithrôn* of light over darkness." With these examples compare: 4:6, "The fulness of one hand with rest has more *tôbh* than the fulness of two fists with toil"; 4:9, "Two have more *tôbh* than one"; 4:13, "A poor wise child has more *tôbh* than an old and foolish king"; 6:9, "The seeing of the eyes has more *tôbh* than the wandering of desire (wisdom has more *tôbh* than folly)"; and 7:1, "A name has more *tôbh* than fine oil." In 7:11 *tôbh* and *yôthêr* are used as synonymous parallels: "Wisdom is *tôbhâ* in time of sick-

ness (or, with an inheritance) and a *yôthêr* for those who see the sun." In 7:12 and 10:10 and 11 the word *tôbh* could have been used in place of *yithrôn* without in any way altering the import of the passages. In 5:8 the author notes that the *yithrôn* of the soil is the chief purpose of the plowed field. In 11:6 he advises sowing fields both morning and evening, for no one knows which will prosper, whether one or the other, or whether both alike will be *tôbhîm*. In each case the author is referring to a profitable harvest. A comparison of the passages 2:13 ff. and 6:8-9 emphasizes the similarity in the meaning of *tôbh* and *yithrôn*. We may note the motifs of 2:13 ff. as follows: (a) Wisdom has more *yithrôn* than folly, just as light has more *yithrôn* than darkness, hence the wise man can see where he is going while the fool cannot. (b) Yet, since there is no *yôthêr* in being wise, the fate of the two is the same. The motifs of 6:8-9 are: (a) The wise man has no *yôthêr* over the fool. (b) The seeing of eyes has more *tôbh* than the wandering of desire (wisdom has more *tôbh* than folly). The order of the motifs of these two passages is reversed. In the former passages he says that wisdom has more *yithrôn* than folly; in the second, that wisdom has more *tôbh* than folly.

"TÔBH" USED IN AN ABSOLUTE SENSE

In 2:24 the author uses the word *tôbh* in an absolute sense just as he uses *yithrôn* in 1:3. "That a man should eat and drink and cause himself to see good in his toil is not *tôbh* (*ên tôbh*). " He explains why these things are not *tôbh* by noting that they are the gifts of God. Man has not acquired them by his own efforts, hence he can in no way consider that he has acquired them as profits from his own endeavors. Verse 3:12 notes that in his opinion there is no *tôbh* but to rejoice, while 3:22 says, "I noted that there was no

ṭōbh apart from the fact that man should rejoice in his work." The expression "no . . . but" infers that there is no real *ṭōbh* acquired by human endeavor, but only a quasi one. Verse 6:12 is rather more precise: "Who knows what *ṭōbh* man has in life?" From these passages, therefore, we may conclude that there was a *ṭōbh* in the mind of the author, the chief characteristic of which was its absence in the experience of man, that there was no return dependent solely on man's labors.

"ṬŌBH" USED IN A RELATIVE SENSE

In a previous paragraph I have noted several passages in which *ṭōbh* is understood as an actuality. The idea that one thing or activity has more *ṭōbh* than another indicates that *ṭōbh* actually existed. The implication of the possibility that the results of sowing seed may be *ṭōbh* is that *ṭōbh* is a possibility.

SUMMARY

Yithrōn and *ṭōbh* are both used in an absolute sense, the chief characteristic of which is their absence from human experience. On the other hand, both words are used in such a way as to infer that they have a reality. Both words are used as norms of comparison, as characteristics of certain activities or of material returns. It will be noted, therefore, that *yithrōn* and its cognates could be used as alternatives for *ṭōbh* without in any way changing the ideas involved. It will also be noted that the word *ṭōbh* is used with two diametrically opposite forces, as is *yithrōn*. It would seem, therefore, that the key which will reconcile the divergent uses of *ṭōbh* may be used to reconcile the divergent uses of *yithrōn*.

In 2:24, 3:13, and 5:17 eating, drinking, and seeing good in one's work are

grouped as gifts of God. In 5:18 we have the combination of eating, receiving one's portion, and rejoicing in one's labor and, in 8:15, of eating, drinking, and rejoicing. From these passages, then, we may assume that either to rejoice or to rejoice in one's work are synonymous terms for seeing good or seeing good in one's work. In 3:12 "rejoicing" and "successful accomplishment" are in such close parallel construction as to lead one to suggest that the intervening *waw* may be *waw* explicative. In 5:18 the receiving of one's portion and rejoicing in one's labor seem to be synonymous parallels also, for, according to 3:22, man's sole portion is to rejoice in his accomplishments. In the light of these statements, therefore, 2:1 takes on a new idea: "Come now, let me try thee with joy that thou mayest understand what is good."

This idea is most explicitly stated in 2:24, "That a man should eat and drink and cause himself to see good in his toil is not *ṭōbh* for man. This, too, I have seen is from the hand of God, for who can eat or drink (*yishteḥ*) apart from him (*mimmennu*)." Two ideas are contained in this passage: that eating, drinking, and seeing good in one's toil is not a good in the absolute sense. That is to say, these things are not attained by man's own endeavors. They are the gift of God. From this we may gather that God bestows on man the gift of thinking that his work is good, that is, productive. In reality, God produces all things, and apart from him nothing is produced; but, owing to his understanding of his creature, man, God permits him to feel that he does accomplish things. When our author states in 2:10 that he had joy from all his toil and that this joy in his toil was his portion, he intimates that he has seen good in it and that this feeling of accomplishment was a gift of God. Verse 5:19b emphasizes this view: God

answers man by the joy of his heart. That is, he has given man the great happiness of feeling that man has accomplished something in his lifetime of toil. On the one hand, then, we have *ṭōbh* used in the absolute sense, the chief characteristic of which is its absence in the realm of man, and, on the other hand, we have *ṭōbh* in a relative sense, the presence of which is due to a divinely appointed illusion.

If, then, *ṭōbh* and *yithrôn* are synonymous terms with Ecclesiastes, the solution of the problem of the double use of *ṭōbh* should be valid for that of the double use of *yithrôn*. In reality, since all things are the creations of God, there can be no *ṭōbh* or *yithrôn* from man's endeavors except as an agent of the deity. However, God has bestowed on man the gift of believing his work productive (good or profitable). These two ideas, therefore, are not irreconcilable in the work of one author. In fact, it would seem that our author has consciously or unconsciously reconciled two different philosophies which are apparent in the various portions of the Old Testament: the divine rule of the universe and man's responsibilities for his own acts.

When our author says, in 2:13, "I noted that wisdom has a *yithrôn* over folly like the *yithrôn* of light over darkness," he must have had in his mind the idea that the deity *has caused him to see* that wisdom is superior to folly or that wisdom is better than folly (6:9). It is significant in each passage that our author denies the reality of these ideas by asserting that fate meets fool and wise man alike—that the wise man has no advantage over the fool. Thus our author sets the absolute and the relative forces of the words *yithrôn* and *ṭōbh* side by side. As a man he feels that the one is superior to the other, but his reason insists that all have the

same fate, hence that, in reality, one is not superior to the other.

Chapter 7:1-8 lists a series of comparisons in which it is suggested that one is better than the other: the day of death is better than the day of one's birth; it is better to go to a house of mourning than to go to a house of feasting; vexation is better than laughing; it is better to listen to the rebuke of a wise man than that of a man who listens to foolish songs; the end of a matter is better than its beginning; patience is better than pride. These are preferences of the human mind, instilled, perhaps, by God, but having no value beyond the human mind. In 3:2-8 we have a catalogue of incidents or activities that go to make up a man's lifetime. In it such opposites as birth and death, slaying and healing, breaking down and building, weeping and laughing, loving and hating, war and peace, are each mentioned as having a set time for happening within the human cycle; and, according to verse 11, God has made all these things seemly in their own time. Here, in God's ordered universe, each thing has its proper time and is seemly in its proper time. There is no question of preference. We must conclude, therefore, that this catalogue could be continued by such statements as: There is a time for going to a house of mourning and a time for going to a house of feasting (cf. 7:2 and 3:4b); there is a time for vexation and a time for laughter (cf. 7:3 and 3:4a); there is a time for beginning a matter and a time for ending a matter (cf. 7:1b and 3:2); there is a time for patience and a time for pride.

On the one hand, we have a list of things that appear preferable to others to the human mind, while, on the other hand, we have a similar list of things with their opposites, each of which is equally good or fitting in its own time; and we must as-

sume that they do occur in their proper time. One is a list setting forth the judgments of the human mind, inspired, of course, by God; the other, the judgment of God who brings all things to pass in their proper time. In the one, relative values are posited; in the other, absolute.

THE PROBLEM OF MAN'S RESPONSIBILITY

When our author suggests that one thing or one line of conduct is preferable to another, he must presuppose that man has the power to evaluate lines of conduct and to select the better. He must also assume that, having chosen a line of conduct, man can follow it as a free individual. If such conditions prevailed in the world, the deity would find it impossible to duplicate the incidents of one age in the next. The problem, however, becomes solvable if we apply the suggestions noted in 2:24. God causes man to think that he is a free agent, to think that he can evaluate things and activities, to think that he can choose either of two lines of conduct, and to think that he can follow that line. This thesis is quite in line with the idea that God causes men to think that their labor is profitable. The early verses of chapter 3 lists a series of human activities in conjunction with their opposites. Since it is God who puts ideas into the mind of man, man must needs carry out that idea at that time. Thus at one time he plants, and at another he roots up what is planted. In both of these activities man is carrying out the will of God at the proper time. A succession of these activities thus carried out occupies man's allotted span of life, and a succession of these allotted spans constitutes the world cycle as planned by God. Thus while man feels that he is carrying out his own ideas in his own time, in reality he is acting under the direct guidance of the deity.

A similar contrast is to be noted in verses 7:11-12 and 8:8. In 7:11-12 we find that wisdom is good in time of sickness (or, with an inheritance), and an advantage to those who see the sun, and that the profit of knowing wisdom is that it keeps its owners alive. This must mean that, by judiciously following the lessons learned by experience, one may lengthen his span of life. In 8:8, however, we read: "Man has no power over the spirit to restrain the spirit; he has no power over the day of his death, and there is no discharge in the war."¹ This can only mean that the span of man's life is fixed and that he will not die before that time, do whatever he might. Here again we have ideas diametrically opposed. When our key is applied, however, the solution is clear. God puts it into the mind of man that a certain treatment of his ailments, learned by experience, will bring him relief. He follows this treatment, and, in so doing, he is doing the inevitable, because he can do nothing else.

CONCLUSIONS

We must conclude that, in the view of Ecclesiastes, man has no choice in any matter but to follow his preferences at any one time and that these preferences are placed in man's mind by God at that certain time. The result is that, although man thinks he is a free agent, in reality he is not. He is simply an agent to carry out God's purpose. According to 6:10, man cannot enter into an argument with one who is stronger than he. Another way of saying the same thing is found in 7:29, "God has made man upright, and they have sought many reckonings." That is to

¹ Dr. Irwin suggests that vs. 8:8 ("Man has no power over the spirit to restrain the spirit") should be considered a portion of a unit composed of vss. 2-8 and that the *rûah* here refers to the king's anger. Man cannot control the royal wrath. The following phrases, however, suggest, rather, that the import of the words in question have to do with man's life, the length of which is beyond his control.

say, God has made man in such a way that he must carry on the work assigned to him.

The author of Ecclesiastes, therefore, distinguishes between the acquisitions of man as an independent individual and those which are given him by God. The former are nonexistent. Therefore everything he does acquire during his lifetime is a gift of God. Furthermore, since man, wise or foolish, must carry out the purpose of God, there can be no such thing as we would call moral sin, and hence there can be no retribution for a breach of the divine law or reward for faithful service. There is no set order in the sequence with which good or evil, the pleasant or the unpleasant, things come to man. No man knows what is coming next (5:16, 7:14, 8:7). Good may be granted a sinner, and evil a wise man, and none can tell whether good or evil will be granted as a sequence to an activity of wisdom or of folly. Thus there is no relationship between man's conduct and his acquisitions, whether it be in the form of length of life (7:15 ff., 8:12), a multitude of possessions, or many sons. A poor child or a slave may become a king, only to be forgotten by a future generation (4:13 ff.); a fool may find himself in high places, while the wealthy sit in low places; slaves may ride on horses, while princes walk like slaves on the ground (10:6-7); a wise man's labor may become the possession of a fool (2:19, 21); in the place of *mishpāt* there is wickedness (3:16); the sleep of a slave is sweet, while a wealthy man cannot sleep (5:11); wealth may be the cause of an injury to its owner (5:12); a wealthy man may lose all his property on a single venture (5:13); a man of many possessions may not be permitted to enjoy them (6:2); the race is not to the swift, nor the battle to the mighty, nor bread to the wise, nor wealth to the discerning, nor

grace to the knowing. Each has its time, but no man knows it (9:11-12). Man, therefore, cannot understand the order of the universe; everything appears to him without any logical sequence. There is no system of awards which would coincide with man's concept of profit. However, to Ecclesiastes, God is not the whimsical being of the Koran. God is the regulator of the universe, and he directs it according to a set plan, known only to himself.

The older writers of the Old Testament postulated two distinct doctrines concerning man and God. On the one hand, they taught that God was the supreme ruler of the universe and, as such, had power over man's activities; and, on the other hand, that man was responsible for his own acts. He was free to obey the laws of God or to disobey them, and in either case he reaped the reward according to his deeds. There was a third point of view developed in the country which was condemned by the prophets, to the effect that God did neither good nor evil or that he let the world go its own way (Zeph. 1:12). The adherent of this point of view was a humanist who accounted for the *non sequitur* of human events as being pure accident; while the author of Ecclesiastes was a theist, according to whom the accidental was of divine origin and occurred in its proper time in the world order. However, it was the adherents to the first two opinions who composed the bulk of the Old Testament literature to which the author of Ecclesiastes owed most. It is just possible that the differences between these are more superficial than appears on the surface.

When the author of Ecclesiastes states that man derives no profit from his toil, he is not making a statement which would have been contested by his predecessors. They would, one and all, have agreed that every acquisition of man was a gift from

God. However, they would have modified this blank statement by saying that these acquisitions were granted as rewards or punishments or as a means of instruction or of discipline.

The fundamental basis of Ecclesiastes' doctrine that man derives no profit from all his toil is that God is the director of the universe and that he orders the sequence of events according to a set plan. This view of the divine government of the world is inherent in Old Testament writings. Our author could not view the progress of his people in retrospect without noting this phenomenon. He followed the story of his people from the time Yahweh made his promise to Abraham to the apparent accomplishment of that promise under David. He studied the divine course of events during the monarchy leading to its fall. He noted that this national catastrophe introduced a period of foreign domination which continued under various powers until his own day. He must have noted, too, that it was during this period of national obscurity that the most remarkable religious development occurred, culminating in his own point of view. National greatness had given place to spiritual greatness. Our author would have an adequate reason for viewing each step in that progress as a necessary incident leading to the consummation of the divine plan as noted in his own day. Each incident therefore, good or evil, marked a necessary step toward the inevitable end. Everything that had occurred was a fragment which was essential to the perfection of the picture.

In his studies of the nation's past he also noted that his predecessors wrote of man as a responsible creature, of one who could formulate his own plans and carry them out, of one who had chosen a wrong course and had suffered because of that

choice. His predecessors had explained suffering as punishment for apostasy from God. This doctrine of divine punishment inferred that man was responsible for his activities.

On the face of it, these two philosophies were impossible of reconciliation. If any man had willed to do differently from what he had done in the course of the history of his people, the divine plan as mapped out, and as consummated, would have been wrecked.

There are, however, numerous incidents in the Old Testament documents which seem to indicate that their authors had concluded that man's freedom of action was largely a matter of human interpretation and so had no basis in reality.

Gen. 25:23 notes that Yahweh informed Rebecca that she was about to give birth to twins and that the elder would serve the younger. These were the words of God and so would carry all the weight of facts. When Jacob bought Esau's birthright for a mess of pottage, and later when Jacob obtained the blessing of Isaac, intended for Esau, by a ruse, we are given to understand that Jacob entered into these plots of his own free will; yet we must consider that such incidents in the lives of Esau and Jacob were fore-ordained to the end that Jacob should obtain a position superior to Esau. A similar feeling of an inevitable sequence of events is to be noted in Jacob's relations with Laban. According to Gen. 42:21 ff., the brothers admit that they had sinned against Joseph. It is clear that they considered themselves responsible individuals who had chosen to do wrong against their brother. On the other hand, 45:5 ff. gives another explanation: "Now do not be distressed or angry with yourselves that you sold me here, for it was to save life that God sent me ahead of you. (8) So

then, it was not you, but God who sent me here." Another version is found in chapter 50. The brothers feel that Joseph might wreak vengeance upon them for their treatment of him, and so they send a messenger to Joseph confessing their sin and asking pardon. Verse 20 contains the reply: "For can I take God's place? You meant to do me harm, but God accounted it for good, in order to do as he has done today: save the lives of many people." Isa. 10:5-34 gives a vivid description of the activities of Assyria. Although the Assyrians themselves consider that they were acting on their own initiative, and with their own powers, in reality it was Yahweh who had roused them up to do his purpose. In chapter 8 of Deuteronomy, Moses warns the Israelites not to think that they had acquired all their possessions by their own initiative and reminds them that, in reality, it was God who had done everything for them.

From these passages we have noted, it is seen that in each case the individuals or groups involved believed they were acting on their own responsibility. The brothers of Joseph believed that evil would befall them as a direct result of their wrongdoing toward Joseph. On the other hand, it is evident that the director of activities in each case was God and that these activities were essential to the accomplishment of the divine plan. The similarity in point of view of Ecclesiastes with the writers of these passages is striking. Such passages as these are sufficient to form a basis upon which our author could formulate his teaching by which he sought to reconcile the view that God directs the ways of man and the view that man is a responsible creature. In fact, one is somewhat tempted to conclude that there was no clash between these two points of view, either in the mind of Ecclesiastes or in

those of the earlier writers of the Old Testament.

I have pointed out the method by which the deity caused men to effect his purpose according to the author of Ecclesiastes. Each man was endowed with a *rûah* from God, and this *rûah* was infinitely more effective in its influence upon man's activities than wisdom or experience. Such a *rûah* impelled the early judges to carry out the divine purpose. Such a *rûah* could lead man to his ruin (I Kings 22:21 ff.). It was a commonplace in the Old Testament for the deity to speak directly or indirectly through a messenger to a leader in order to direct him. The prophets took it for granted that they were the mouthpieces of deity—that God revealed to them his plans for his people. Amos felt that he had no alternative but to carry out the divine order (Amos 8:8). When the gift of prophecy had passed from the Israelite picture, the wise and the lawgivers took up the struggle. Both these classes believed their teachings inspired of God. These are examples of instances in which God spoke to individual leaders. There was, however, current before the time of Ecclesiastes an idea that God directed the thoughts of men in general (Amos 4:13). It would have been easy for Ecclesiastes to evolve his idea that God directed not only the lives of certain individuals but the lives of all. Even though the individual does not recognize the fact, it is God who puts into his mind his thoughts—even the idea that he is a responsible creature. It is clear, therefore, that Ecclesiastes is following directly in the footsteps of his predecessors in suggesting this idea.

The idea that man derives no profit from all his toil involves the idea that good or evil does not accrue to man as a direct result of his activities. If it be true

that God not only impels man to toil but directs him in what that toil should consist, then any results that may accrue are due to God and so become his creations. Since these creations are, therefore, in reality, God's, a return of good or evil by God to the worker for his work would be impossible. Some such feeling as this comes to one in reading the stories of the patriarchs. Their wealth was granted them by Yahweh for no virtue of their own but because they were chosen of God. Their sufferings were not inflicted upon them because of any sin that could be imputed to them but because the suffering was necessary to bring about the next phase in the developments of God's plan.

In the Old Testament there are two distinct doctrines of evil. According to one, wealth was nearly synonymous with sin, and poverty or suffering with innocence. According to the other, prosperity was a concomitant of righteousness, and suffering of wickedness. Both these doctrines could not be true. Experience had proved that neither was always true. It seems possible that the difficulty of solving this problem led the author to a conclusion that is consistent with his idea of a rigidly controlled universe, with the idea that each man carries out the part of the divine plan that is allotted to that man, even though that man feels himself an independent creature. He was forced, therefore, to the conclusion that good or evil is sent to a man, not as rewards or punishments, but simply as incidents necessary to bring about the consummation of the

divine plan. In postulating such a theory, our author could have used the stories of the patriarchs as a basis.

It is evident, therefore, that the author of Ecclesiastes could have found ample evidence in the older writings to justify his point of view that God's rule was absolute, that man only thought he was a free agent, that God directs the thoughts and activities of man by some mechanism, and that good or evil is bestowed on man without reference to his previous condition but simply as a necessary prelude to the next phase of his life. If our author's purpose was to discover the purpose of life, he has at least limited the field for positive conclusions by eliminating the reality of profit and, at the same time, by denying the responsibility of the individual. It is difficult to conclude whether our author has added anything to the problem which is not found more or less incidentally in the various portions of the Old Testament. His work cannot be considered as a dissertation in which one phase of his argument is made to grow directly from the preceding. It is rather a series of more or less isolated thoughts, all of which had a central theme—"life"—and might well have been entitled, "Guesses at the Truth." Its chief virtue is, rather, that it does collect these gems of Old Testament orthodox teaching within a narrow compass and present them in an extremely arresting fashion.

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VOCABULARY OF BEDOUIN WORDS CONCERNING HORSES

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THE following collection of terms of Arabic hippology, gathered over a period of twenty-six years, was derived from my association with nineteen Bedouin tribes, with whom I migrated in Syria, Iraq, Kuwayt, Transjordan, and the provinces of Hejaz, Nejd, and Qasim. The main sources of information concerning the equine strains of the desert were the Inner Arabian camel- and horse-breeding tribes, especially the large groups of the 'Anaze nation, as well as of the Shammar, Mutayr, 'Ajman, Harb, and 'Atayban, their horse-owning Shiyukhs, and other aristocratic families. For further details on these tribes see my article and maps on "Tribal Areas and Migration Lines of the North Arabian Bedouins."¹

While duly alive to certain inadequacies of the collection, I feel justified in presenting it to a wider public because I fear that it may be some time before a man with better philological equipment will be able to combine an intimate knowledge of animal husbandry and horsemanship with an opportunity to spend more than two decades of his life as an adopted member among various Bedouin tribes. Moreover, it seems rather unlikely that for some time to come an Arabist will be willing to spend as much time on Arabian studbooks, pedigrees, and importation papers, from which I think I was able to draw a considerable number of hitherto neglected expressions.

Certain inconsistencies in the transliteration of terms may be accounted for by the fact that they were collected over so long a period of time and by the difficulty I experienced in taking down exact phonetic values—a difficulty increased by the various pronunciations occurring

among the tribes. Also, my philological training in classic Arabic was never completed. My studies in Cairo and Damascus were interrupted when the first World War broke out, and I had to depend later on a self-taught knowledge, which I gathered in America from books and in Arabia with the assistance of some scribes who were attached to illiterate chieftains of the desert. I am fully aware that one or the other of my transliterations will be considered dubious by philologists, but I wish that they be understood as perhaps the inadequate attempts to catch such shades of pronunciation as are not easily rendered in either Arabic or Latin script. This applies, among others, to my use of long *a* and to the occasional omission of *hamza*. Words underlined in the list of Arabic words, and transliterated in capital letters elsewhere, mark *strains* (or *substrains*) of Arabian horses. Most of these words I rechecked in the studbooks and pedigrees at the libraries of Arabian stud farms in Egypt, Poland, Hungary, Germany, France, Spain, England, and the United States.²

I trust the materials will be accepted as they were offered—as a collection of lexicographical rarities and as a contribution to the modern Bedouin language; it is hoped that this collection will soon be brought to a more scientifically unassailable level.

² Since completing this manuscript I have been informed by Professor J. J. Hess von Wyss, of Zurich, Switzerland, that, among others, the following works contain many words concerning Arabian horses: (1) Ibn Sidah, *Kutub al-Muhassas* (Cairo 1316 Hija), V, 135-98; (2) Damiri, *Hayat al-Hayawan*, trans. Lieutenant Colonel A. S. G. Jayakar (London, 1906-8), I, 715-32, and II, 522-51; (3) J. J. Hess von Wyss, in *Der Islam*, X (1920), 82-86 (concerning the colors of Arabian horses).

I have not examined these references, but I trust that students and scholars who are interested will check them for additional words. It would be most interesting to compare any additional words with the living Bedouin language of Inner Arabia and thus gain further information as to the extent hippological interest helped preserve the ancient (classic) tongue among the migrating (desert) Arabs.

¹ *Geographical Review* (New York), XX, No. 3 (July, 1930), 494-502.

- 1 ABĀHĪR ابامهر
2 ABAYĀN عبايان
3 ABAYSA ^{femin. ABĀYE} عبايسا
4 ABBŪD عبيود
5 ABD عبيد
6 ABHŪL عبهول
7 ĀBRASH ابرش
8 ĀBSĀN ^{femin. ĀBRASHĀ} عبايسان
9 ĀBŪ (AL-) KHĀYL ابو الخيل
10 ĀBŪ HADLĀN ابو هذلات
11 ĀBŪ JUNŪB ابو جنوب
12 ĀBŪ NA'RAFE ابو معرفه
13 ĀBŪ (AL-) NAJDĪ ابو النجدى
14 ĀBŪ SĀUR ابو سور
15 ĀBŪ SHĀUK ابو شنوك
16 ĀBŪ SIRHĀN ابو سرحات
17 ĀBŪ 'URQŪB -see 'URQŪB
18 'ADAD عضد
19 'ADAM عضم
20 ADHAM ادهم
21 'ADHIME ^{femin. DAHMĀ} عذمه
22 'ADHR HAKAM عذر حكيم
23 'ĀDIYĀT عاديات
24 ĀḌLĀ' اضلاع
25 'AFAS عفس
26 ĀFRAHĪ افرضحي
27 ĀFNAS افنس
28 ĀFRADAT افردات
29 ĀGHSAṬSĀL اغسائسال
30 AGHTAF اغتف
31 ĀHDAB اهدب
32 ĀHTAFAL احتفل
33 ĀHJAN احجك
34 ĀHMAR احمر
35 AHSAN AL-HAQĪBE AR-RĪḌL احسن الحقيبه (الرجل)
36 'ĀṬR عاير
37 ĀṬQAM اجقم
38 'AṬŪZ عجوز

- 39 'AṬŪZ - KUḤAYLĀT AL-'AṬŪZ
40 ĀKAF اكف
41 ĀKAME اكهمه
42 ĀKHḌAR اخضر
43 ĀKHḌAR WA MĀ اخضر و ماء
44 ĀKHĪR AD-DAWĀ AL-KAYI اخر الدوا (الكبي)
45 ĀKHNAS اخنس
46 ĀKHNAS اخرس
47 ĀKHULWA اخوة
48 ALĪQ علمق
49 AL-KUHL التحل
50 ĀLLĀH YUBĀRIK-LAK الله يبارك لك
51 'ALLŪH علقه
52 ĀMANKHĀR امنخار
53 ALWĀH الواح
54 'AMĀYĀR عماير
55 'ĀMĪR عامر
56 'ĀMĪRĪYE عامريه
57 ĀMLAH املاح
58 ĀMLĀK املاكى
59 ĀMRADĪ امر دى
60 ĀN-ĀM انعام
61 ANĀN عنات
62 AND عند
63 'ANDALĪVEH عندليه (?)
64 ĀNF انف
65 'ANF عنف
66 ĀNĀMĀT انمي
67 ĀNNA انن
68 'ANG عنق
69 'ANZ (AD-) DARWISH عنزالد و بيش
70 AQAB عقب
71 'AQAYL عقيل
72 ĀQHĀM اقحام
73 ĀQNŪN اقنوت
74 'AQŪQ عقوف
75 AQZABAT اقظبت

76	Â'RAW	ا ع ر ج
77	'ARAYQE	ع ر ي ق ع
78	'ARB	ع ر ب
79	ÂRUJASÎ	ا ر ج س ي
80	ÂRKABI	ا ر ك ب ي
81	ÂRKABI see ʔAQLÂWÎ	ا ر ك ب ي
82	ÂRUAB	ا ر ن ب
83	ARNÛNE	ع ر ن و ن ه
84	'ARQA	ع ر ق ه
85	'ARQÛB	ع ر ق و ب
86	ÂRSLÂN	ا ر س ل ا ن
87	'ASAB (TANSHAT)	ت ح س ب ت ن ش ط
88	ÂS'AF	ا س ع ف
89	'ÂŞAF	ع ا ص ف
90	ÂŞÂLE	ا ص ا ل ه
91	ÂSÂS	ا س ا س
92	AŞÂYL see AŞÎL	
93	ÂŞDÂ	ا ص د ا
94	ÂSFAR	ا ص ف ر
95	ÂSH'AL	ص ف ر ا ء - SAFRÂ femin.
96	ÂSHÂR	ا ش ن ا ر
97	ÂSH'ÂR	ا ش ع ا ر
98	LASH'ÂR	ع ش ع ا ر
99	ASHBE	ع ش ب ه
100	'ASHIYE	ع ش ب ي ه
101	ÂSHQAR	ا ش ق ر
102	ÂŞÎL (fem. ÂSAL) (أصل)	ا ص ب ل (أصل)
103	'AŞLAT	Root is AŞL. PLURAL = AŞAYIL ع ص ل ا ت
104	ÂŞNAC	ا ص ن ع
105	'AŞÛŞ	ع ص و ش
106	ÂTA'AT	ا ت ع ط
107	'ATHR	ع ث ر
108	ÂT'i	ا ن ع ي
109	'ÂTIK	ع ا ن ك ه
110	ATTESHI - a Turkish word.	(NOT HATİK ه ت ي ك)
111	'ATWA ('UTWAH)	ع ط و ع
112	'ÂUDE	ع و د ه
113	'ÂUÂN	ع و ج ا ء
114	'ÂUÛYE	(ع و ج ا ء) ع و ج ي ه

115	AULAQI	ا و ل ق ي
116	AUWAL QARH see QÂRAH	
117	Â'WAO	ا ع و ج
118	Â'WAR	ا ع و ر
119	'ÂYÎR	ع ا ي ر
120	'AYYÛQ	ع ي و ق
121	'AZAB	ع ز ب
122	ÂZ'ÂL	ا ز ع ا ل
123	ÂZBARÎ	ا ز ب ر ي
124	ÂZBARÎ	ا ز ب ر ي
125	'AZÎB	ع ز ب ب
126	'AZÎDE	ع ز د ه
127	ÂZQAR	ا ز ق ر
128	ÂZRAQ	ا ز ر ق
129	'AZZ AN-NÂÛID	ع ز ا ن ا ج د
130	BADAL	ب د ل
131	BAGHLE	ب غ ل ه
132	BAHÎMÂN	ب ه ي م ا ن
133	BAHÎRE	ب ح ي ر ه
134	BAHRI	ب ح ر ه
135	BALADI	ب ل د ي
136	BALÎYE	ب ل ي ه
137	BANÂT AL-BARRA	ب ن ا ت الب ر ر
138	BAQLÉ	ب ن ا ت الماء ب ق ل ه
139	BAKRAJE	ب ع ر ج ه
140	BARAS	ب ر س
141	BARÂZÎN (مخمر)	ب ر ا ز ب ن
142	BARDÂWIL	(مخمر) - م ع ر ف ب ر د ا و ب ل
143	BÂRIDÂT AL'AWUF	ب ر ا د ا ن الج و ف
144	BARJASÎYE	ب ر ج س ي ه
145	BATN	ب ط ن
146	BÂÛIRÎ	ب ا ي ر ي
147	Bî'CHIURE	ب ي ع ح ي ر ه
148	BILÂD AU'ÛÂN	ب ل ا د ا ل ج و ا ن
149	Bî'MIQALFA'	ب ي ع م ق ل ف ع
150	BINT (AL-)FARAS	ب ن ت الف ر س
151	BINT (AL-)HUŞÂN	ب ن ت الح ص ا ن
152	BINT (AL-)LABAN	ب ن ت الل ب ن
153	Bî'MITHÂNI	ب ي ع م ث ا ن ي

154 BISHRI	بشتر
155 BIZÎM	بزیم
156 <u>BUNÛD</u>	بنود
157 BURÂQ	براق
158 BURTUM	برطم
159 BUTÂNE	بطانة
160 <u>DAALAN</u> see DÂLTÏE	
161 DABA'	ضبح
162 DABB	ضب
163 DABBÛR	ضبور
164 DABUR	د بور
165 <u>DAPA'AHÂ</u>	د قحما
166 <u>DÂGHIR</u>	د اعر
167 <u>DÂHIRÎ</u>	د اهری
168 DÂHIS	د اچس
169 DAHMÂ	د هماء
170 <u>DAHMAN</u>	د همان
171 <u>DAHMAN</u>	د همان
172 <u>DAHWE AN-NIMR</u>	د حموة النمر
173 <u>DAHWE</u>	د حوة
174 <u>DÂ'IR</u>	د اعر
175 <u>DAWÂNÎ</u>	د جانجی
176 <u>DAWÂNÎ</u>	د جانجی
177 DAKHÎL	د خیل
178 DALÂL	د لال
179 <u>DÂLTÏE</u>	د الیة
180 DARB	ضرب
181 <u>DASÎM</u>	د سیم
182 DATMÂK	د تماک
183 DÂÛÂ	د واء
184 DÂÛS	د و س (د و بیف ^{pluv. d'wîyf})
185 DÂÛSAR	د و سر
186 DAWÂM	د و ام
187 DÂÛD	د بد
188 DHABAHA	د باح
189 DHABL	د بل
190 DHAKAR	د کمر
191 <u>DHAKH KÂR</u>	د کور (د کور ^{pluv. dhukûre})

192 DHANAB	د نب
193 DHARÂ'	د راع
194 DHAYL	د یل
195 DHIBBÂNE AL-KHAYL	د بانه الخیل
196 DHIHÛB	د هوب
197 DHRÂ'	د راع
198 DHÛ (AL-) FAQQÂL	د و العقال
199 <u>DHUBYÂN</u>	د بیان
200 DHÛ (AL-) FAQÂR	د و الفقار
201 <u>DILHAMÎ</u>	د لہمی
202 ^{pluv. DILALAMÎE} DÎNÂRÎ	د بناری
203 <u>DÎQE</u> (UMM AR-DÎQE)	د ام الضیقہ
204 DÎRÂ'	د راع (د راع ^{pluv. DÎRÂ'})
205 DÎZÎO	د یزج
206 DUFDA'	ضفدع
207 <u>DÛKHÎ</u>	د و خبی
208 DULDUL	د دلر
209 DUMÂYTÎR	د میثیر
210 DUNÂYS	د نیس
211 <u>DURÂTÏE</u>	د رجیة
212 <u>DURAYB</u> (ABU OT UMM)	ضربب
213 <u>DÛWÂYBE</u>	د و بیفہ
214 FAHAR	فر
215 <u>FAHJE DAYN RIJLAYA</u>	فحجہ بین رجیہ
216 FAKHADH	فخذ
217 FALQE	فلقة
218 FANTÂS	فنتاس
219 FAGA	فقه
220 FARAS	فرس
221 <u>FARÂT</u>	فراط
222 FÂRIS	فارس
223 FAŞA' (NA'Z)	فصح (نحظ)
224 FATÂÛL	فتابل
225 FÂÛS	فاعوس
226 FILÛ	فلو
227 FÎNSE	فندسہ
228 FUHL	فحل
229 FÛQ AL-'ÂLÎ	فوق العالی

230 FURÂTÎYE	فرا تيه
231 FURÂÛJÂN	فراجان
232 GHABRÂ'	غبراء
233 GHAD'BÂN	غضبان
234 GHÂFÎL	غافل
235 GHALTÂN	غلطان
236 GHAMÂME	غما مه
237 GHAMR	غمر
238 GHANDÛR	غندور
239 GHÂRA	غار ه
240 GHARBÎ	غربي
241 GHÂÛÂM	غيام
242 GHÂÛYÛSH	غيوش
243 GHÂZÂLE	غزاله
244 GHÂZÎ	غازي
245 GHÎ'	غيح
246 GH(R)ULATHÎ	غلثي
247 GHURÂBÎYE	غمرانية
248 GHURRE	غرة
249 HABALA	حابلي
250 HABATIKTAK	حبطقطق
251 HABÎBÎ	حبيبي
252 HABÎS	حبيس
253 HABRA	حبره
254 HÂD	هاد
255 HADÂGI AR-RÛD	حدائق الروض
256 HAD'BÂN	حدبات
257 HADHA'	حدج
258 HADÎ	حظي
259 HADÎD	حدبد
260 HADÎQA' AL-KHÎYÛL AL-ARABÎYAH	حدائق الخيول العربية
261 HADRAL-BÂSHIR	حد البشير
262 HADRAJÎ	حدرجي
263 HADÛD	حدود
264 HÂFÎ	حافي
265 HAFÎÂNE	حفيانة
266 HÂFÎR	حافر
267 HÂFIRE	حافرة

268 HÂI YÛ	هائي
269 HAVILE	هالة
270 HAKKAKÛ	هائلة
271 HÂL	هال
272 HÂL	حال
273 HÂLS	حلس
274 HALÂL	حلال
275 HALÂWÎ	حلاوي
276 HALÎME	حليمة
277 HALÛN	حلوج
278 HAMAR	حمر
279 HAMPÂNÎ	حمدايني
280 HAMHÂME	حممة
281 HAMHARET	حمرة
282 HAMÎDÎ	هميدي
283 HAMR	حمر
284 HAMRÂ'	حمراء
285 HAMRÂ TALSÂ	حمراء تلسا
286 HAMRÂ' TAWATTÂ' BÎ YALA MÎHLALÂ' HÎD	حمراء توطع بي على مثل الحمري
287 HAMSH HAY	همش جي
288 HANAK(HANK)	هنكي
289 HANK	حنكي
290 HAQAF	حقف
291 HAQAT	حقط
292 HAQSHÊ	هقشنه
293 HARAD	هرد
294 HARF	هرف
295 HARF	حرف
296 HÂRIK	حاركي
297 HARTSH - see KHARISH	حرتش
298 HASHAK	حشك
299 HASHE	حشنه
300 HASSÂN	حضان
301 HATÎK	هتيكي
302 HATT	حت
303 HAÛB	حوب
304 HÂÛFÎ	هيفي
305 HÂÛKILÂÛN	هيكليين

306 HAYZŪM حيزوم
 307 HAZĀBĀ حزا بي (ب)
 308 HAZME حزمه
 309 HĪ حى
 310 HIDHIBA هذبه
 311 HİJĀB حجاب
 312 HİJAZE حظه
 313 HİJĀZĪ حجازى
 314 HİJR حمر
 315 HİJRAT AL-ʿAYN حجرة العين
 316 HİLĀQ حلاق
 317 HILHAL هلهل
 318 HIMA حمى
 319 HİMLİŪ هملى
 320 HİMYAR حمير
 321 HİNBİR هنبر
 322 HİNNĀ حنّاء
 323 HİQQ حق
 324 HIRĀWET AL-ĀʿZAB فراوة الأعزب
 325 HİZĀM حزام
 326 HUDĀYRĪ حضيرى
 327 HUDHĀ حذاء
 328 HUFRE حفرة
 329 HUŪJE حجة
 330 HUMĀH حماة
 331 HUNĀYDĪ هنيدي
 332 HUNĀYFĀN هنيفان (ب)
 333 HURJULĪ حر جلي
 334 HURME حرمة
 335 HUṢĀN حصان
 336 (AL) HUṢĀN HADŪD MAʿNĀ SHABBO الوصان حدود معنا شبتى
 337 HUWĀR حوار
 338 HUWET حووة
 339 HŪWLI حولى
 340 ĪD ران
 341 ʿĪD عيد
 342 ʿIDHĀR عذار
 343 IDHĪN اذن

344 ʿILIME علمه
 345 ʿIMRŪYE عمرية
 346 ʿINTHA انثى، انثى
 347 ʿINZĪHĪ انزحى
 348 ʿIQṬAFAT اقطف،
 349 ʿIQUṢṢ اقصى
 350 ʿIRĀQ عراق
 351 IRBĀYṬE اربيطه
 352 ʿISHB عشب
 353 ʿISHR عشر
 354 ʿISMĀʿĪL اسمعيل
 355 ʿISTABL اصطلب
 356 ʿĪTISHA اتشنى
 357 ʿITTĪĀL عقال
 358 ʿJABĪHA جبىحه
 359 ʿJĀB WADĀN جاب و دان
 360 ʿJĀD ʿILAH جاد علمه
 361 ʿJAFAL جفل
 362 ʿJĀʿFAR KHĀNĪ (or KHĀNĪS) جعفر خاني
 363 ʿJĀHARA ʿJĀHARĀB جهره جهر ب
 364 ʿJĀĪRA جيرة
 365 ʿJĀLAM جلم
 366 ʿJĀLLĀB جليب
 367 ʿJĀLLĀBĪ جلابى
 368 ʿJĀMB جيب
 369 ʿJĀMME جم
 370 ʿJĀMŪH جموح
 371 ʿJĀNĀB جنب
 372 ʿJĀNBĀZ جانباز
 373 ʿJĀNĪDH جنيد
 374 ʿJĀNŪB جنوب
 375 ʿJĀRĀD جراد
 376 ʿJĀRĀR جرار
 377 ʿJĀRAS (ABU or UMM) جرس
 378 ʿJĀRĀSHĀVE (جربسه) جرنبيه
 379 ʿJĀRĪBE جربيه
 380 ʿJĀRĪD جربد
 381 ʿJĀRĪJAR جربجر

- 382 JĀRR جا ٣
383 JARRAB ḤUṢĀN حَرْب حَصَان
384 JAṢHĀR جَشَار
385 JĀSŪS جاسوس
386 JĀUHARE جوهره
387 JĀŪSH (see JĀUHARE) جاوليش
388 JĀULĀN جولان
389 JĀUHARE جوهره
390 JĀ'ZA جاحزة
391 JĀZĪ جازي
392 JĀZĪR (see JĀZĪN) جزير
393 JĪDHĀ جبهة
394 JĪDHĀT NĀṬĪ' جبهة نظام
395 JĪBRĀS جبراص
396 JĪDĀ' جدد
397 JĪDHĀ' جدد
398 JĪDHR جذر
399 JĪDRĀNĪ جدران
400 JĪFLĀ (JĪDĀR - plur. JĪDRĀN) جدار
401 JĪLĀL جلار
402 JĪLE جلة
403 JĪLFĀN جلفان
404 JĪMAYZE جلف (see JĪLFE) جلف
405 JĪNĀH AT-TĀYR جناح الطير
406 JĪRAB جرب
407 JĪRĀN جيران
408 JĪRBĪYE جريبة
409 JĪRĪSH جريش
410 JĪRM جرم
411 JĪRRE (see JĪRŪM) جر
412 JĪWĀD جواد
413 JŪN جون
414 JŪNŪB (see ĀBŪ JŪNŪB)
415 JŪRAYBAH (see JĀRĪBE)
416 JŪRĀYS جريس
417 JŪRHE (see JĀRAS) جرحه
418 JŪTĀYĒ جطية
419 JŪWĀYHĪ جوهري

- 420 KABAD كبد
421 K(Q)ABR AL-KHĀYĀL MAFTŪH قبر الخيال
422 KĀHAL (AL) HĀRIK كاهل الحاركي
423 KĀKĀL كلال
424 KĀM (صدر) كام
425 KĀMĀSH كملش
426 KĀMITL AL-WĀHASH كمثل الوشن
427 KARBŪZ كربوز
428 KARRĀR كترار
429 KASHĪNĪYE (KHASHĪNĪYE) خشنبية
430 KĀTĀF كتاف
431 KĀBĪTE خبيطة
432 (KĀBĪRE) (خبيطة)
433 KĀBŪHĀ (JĀBAL) خبوا (جبل)
434 KĀDHĀL خذر
435 KĀDALĪ خدلي
436 KĀDRĀ خدره
437 KĀDRET خضرة
438 KĀLYĀŪ' خلبوي
439 KĀMISE خامسة
440 KĀMM خم
441 KĀMSE خمسة
442 KĀMSĪ خامسي
443 KĀRAS (see ĀKĀRAS) خريش
444 KĀRĪSH خريش
445 KĀRRA خريه
446 KĀRŪQ خروق
447 KĀSHĪBĀN خشيبان
448 KĀSM (KĀSHĪNĪYE see KĀSHĪNĪYE) خصم
449 KĀTAN ختن
450 KĀTĀTĀR خطار
451 KĀYĀL (see KĀYĀL)
452 KĀYĀL خيل
453 (see KĀYĀL, KĀYŪL) خيل
454 (see KĀYĀL, KĀYŪL) خيل
455 KĀYĀL خيال
456 KĀYŪL خيل
457 (see KĀYŪL) خيل

458 KHRÛJ (AL-MIRSHIH) خروج الميرشيه
 459 KHUBÛZE خبيرة
 460 KHUDÂIR خضير
 461 KHUMÂÏS خميس
 462 KHURFÎSH خر فيش
 463 KHURS خرس
 464 KHUSHAYMÎ خشميه
 465 KHUŞÏYÂN خصيات
 466 KİDÎSH كديش
 467 KILÂB AL-KHALA ^(péuvel: KUDUSH) كلاب الخلاء
 468 KIRA' كرا
 469 KIRR WA FIRR كير وفير
 470 KRÂ' كرا
 471 KÛ' كوع
 472 KUBÂR AR-RUHÂÏM QUNNÎ HÂÏD AL-BAHÂÏM ^(péuvel: KUBAYSHÂN) كبادار الميم قننه البهايم
 473 KUBAYSHÂN ^(péuvel: KUBAYSHÂN) كبيشان
 474 KUHAYLAN ^(péuvel: KUHAYLE) كبلان
 475 KUMÂYT كميت
 476 KUNÂÏDIYE كنيديه
 477 KUNÂÏHIR كنيهر
 478 KURÛSH كروش
 479 LAHÎF لحيف
 480 LAHM HALÂL لحم حلال
 481 LAKHTÂF لخطاف
 482 LATÎM لطيم
 483 LÂÏN لين
 484 LAZÂZ ÎYE لازازيه
 485 LIBBÂDE لبادة
 486 LIBDI لبدى
 487 LİC B (AL-KHÂYL) لعب الخيل
 488 LIBNI لبنى
 489 LÛH لوح
 490 LUQAHE ^(péuvel: ALWÂH) لقاه
 491 <sup>MÂ ARTS ANÛ IR KUB DHALÛL LÂU ZÂÏNÛLT SHÂÏD MA
ARÛV ANÂ HANRÂ SHANÛF HANRÂ SIRÏVE ARÛDÎNÂ</sup>
 492 MA'ARIF ^(péuvel: MA'ARIF) معارف
 493 MABTÎN مبطن
 494 MADANI مدنى
 495 MADBÛT مضبوط

496 MADHBAH مذبح
 497 MADHI مذى
 498 MAQHRAÛ مغربى
 499 MAGHT معط
 500 MAHCÂ محبا
 501 MAHA محى
 502 MAHASSANE محسنه
 503 MAHDÎ محدي
 504 MAHHÛR (MASHHÛR) مشهور
 505 MAHÛJÂ محوجا
 506 MAHÛRE مهو
 507 MAJAFAR ÂPLÂ' مجفرا الى ضلع
 508 MAJARRE مجرة
 509 MAJMA' مجمع
 510 MAJNÛN مجنون
 511 MAKAKAQ مكارق
 512 MAKAS مكنس
 513 MAL'AL' ملح ل
 514 MALGH ملح
 515 MALHÂ' ملحاء
 516 MALÎH ملبى
 517 MAMA'ET مهاد
 518 MAMLÛK مملوك
 519 MAMLÛQ مملوق
 520 MAMRAHÎ ممرحى
 521 MA'NAQ (DANÛ MA'NAQ) معنف
 522 MANDÛB مندوب
 523 MANFARA' (AL-HASHÛ) منفرج (الحشوة)
 524 MANFÛHE منقو حة
 525 MANKAS منكس
 526 MANŞÛR منصور
 527 MANŞÛR QALÂÛN منصور قلاون
 528 MAGATTASH-SHA'R مقطّ النعير
 529 MA'RAFA معرفه
 530 MARÂH مراح
 531 MACRAQE معرفه
 532 MARBAT مربوط
 533 MARDÛF مردوف

534 MARĠGHĪYE مر بغيه
 535 MARĠQE معرفة
 536 MARKAB مركب
 537 MARRĠET مريضة
 538 MARSAN مرسى
 539 MARSŪKHE مر سوخة
 540 MARTA' مرتج
 541 MA'RŪ BĀYTE معروف بيته
 542 MAŠAKH مصغ
 543 MAS'AD مسعد
 544 MASAMMAT مصممة
 545 MASHĀŪD مشا جد
 546 MASHAKHAM مشتركهم
 547 MASHĀLAT مشالة
 548 MASHHŪR (see MAHHŪR)
 549 MASLŪB مسلوب
 550 MASRŪQ مسروق
 551 MASRŪR مسرور
 552 MATĀ' متاع
 553 MATHFĀR مثفار
 554 MATĪN متين
 555 MATRAHA مطر حة
 556 MĀ'WARD ماء ورد
 557 MAYDĀN ميدان
 558 MĀYṢĀN ميسان
 559 MAYSŪM ميسوم
 560 MAZBUTE (see MAZBUTE)
 561 MAZLĀQ مزلاق
 562 MIDĀMA A'AL-ĀYN مد (مع العين)
 563 MIṢRĪQ RĀSE-HĀ مفرق رأسها
 564 MIḤJĀN ميجان
 565 MIHMĀZ ميماز
 566 MIKHLĀT مخلات
 567 MILTKĀN مليكان
 568 MILHĀN ملحات
 569 MILWAH (root of AL-WAH) ملواح
 570 MINDAKHT (see MILWĀYĪNE) مندخج
 571 MINDĀL مندار

572 MINDĪL مندبل
 573 MINKHAR منخر
 574 MiQALFA' (see: BĠ MiQALFA)
 575 MĪRĀTH ميراث
 576 MĪRĠ ميرب
 577 MĪRĪSE ميريسه
 578 MĪR'IZZ مير عز
 579 MĪRKĪBE مير كبه
 580 MĪRRE مير رة
 581 MĪRSHIHE مير شيه
 582 MĪRWATH مير شور
 583 MĪRZŪQ مير زوق
 584 MĪSHĀB مير شعب
 585 MĪSIMMA' ميرسيم
 586 MĪSMA ميرسمه
 587 MĪTHĀNĪ (see: BĠ MĪTHĀNĪ)
 588 MĪTHĪQLF ميرثقلة
 589 MĪZĀDE ميرزادة
 590 MORUĀNE مير جانة
 591 MU'ABHALĪYE ميربالية
 592 MŪ'ĀM موام
 593 MU'AMML موعمل
 594 MU'ĀNĪD معاند
 595 MŪḌAN مودن
 596 MUDAYRĪ مدبرى
 597 MUDHĪRE' مذرع
 598 MUFTĪR مفطر
 599 MUGHANNĪYE منغنية
 600 MUGHNĪJĀT منغنيات
 601 MUHADDĀDE محدادة
 602 MUHAJALE محجلة
 603 MUHAMMASE محمسه
 604 MUHĀWĪT محاو
 605 MUHĀYĪT محايط
 606 MUHĀYĪNE محينه
 607 MŪHĪD موحد
 608 MUHRE مهر
 609 MUHĀRIS (see: MUHĀR) مهر س

610 MU'IL	معيل
611 MUJALLI	مجلّي
612 MUJADDIR	مجدّر
613 <u>MUKHALLAD</u>	مخلّد
614 ^(sem. MUKHALLIYE) MUKHAWWAZE	مخوّر
615 MUKHR	مخر
616 MUKMÂN	مكمان
617 MUKRÎ	ماكري
618 MÛLID	مولد
619 MULÛK AL-KHÂYL DUHMAH	ملوك الخيل دهمها
620 MUNA'IZ	منيز
621 <u>MUKNIQ</u>	معنق
622 ^(MUKNIQIYE) MUSTADIR	مستدبر
623 MUNIRE	منيرة
624 MUNTAHÎ	منتهي
625 MUNTIFIQI	منتفقي
626 MUNUWRA	منورة
627 MUQÂSARE	مقاسرة
628 MU'R	معر
629 MU'RABBE	معربة
630 ^(NOT: MURABBA') MURDÎ'E	مرصعة
631 MURTÂH	مرتاح
632 MURTAJIZ	مرتجز
633 MU'ADDAQE	مصدة
634 MUSÂFIR (see ZÂ AL-MUSÂFIR)	
635 MUSALLÎ	مصلّي
636 MUŞHAF	مصحف
637 MUSHAMMARAT ASH-SHILIL	مشمره الشليل
638 MUSHAYTIB	مشتطب
639 MUSINNE	مستنة
640 MUSRÂN	مصران
641 MU'TADIL	معنديل
642 MU'TAŞIM	معنصم
643 MU'TI	معطي
644 <u>MUSWAJ</u>	معوج
645 ^(sem. MU'WAJJIYE) MUWALLI	مؤوي
646 MU'ZANIYE	معزنية
647 NA'AME	نوامه

648 NABQ	نبق
649 NADAF	ندف
650 NADÂTÂN	ندراتان
651 NAFAQ	نقف
652 NAFIS	نفس
653 NAFIZA	نفيزه
654 NAFSAH TIDHÛB	نفسه تدروب
655 NAHARA	نحر
656 NÂ'î	ناعج
657 NAJDÎ	نجدى
658 NÂJÎ	ناحي
659 NAJÎB	نجيب
660 NAJÎB	نجاب
661 NAJMETAS-SUBH	نجمة الصبح
662 NAKH	نخ
663 NAKHAR	نخر
664 NAKHLE	نخلة
665 NA'L	نعل
666 NAQÎB	نقيب
667 NAQQÂLT AL-KIFAN	نقالت الكفن
668 NAQR	نقر
669 NASHAH	نسخ
670 NASBÂL	نصب ار
671 NÂŞIF	نصيف
672 NASL AL-KHAYL	نسل الخيل
673 NÂŞIYE	نامية
674 NAŞL (see NISBA)	(نوا من NAWÂŞIYE)
675 NATT	نط
676 NATTÂH ASH-SHA'ÛR	نطاح الشعور
677 NÂUFALÎ	نوفلي
678 NÂUWÂQ	نواف
679 NAWÂŞÎ (see NÂŞIYE)	
680 NÎLÎ	نيلى
681 NÎLÎYE (see ZIRQÂ)	
682 NISBE	نسبة
683 NISHÂN	نشان
684 NITÂ'U	(نيتاشين NITASHIN)
685 NIZAHÎ (see INZIHÎ)	نتاج

686 NUQĀYRE	نُقَيْرَة
687 NUṢṢĀ	نُصْبِي
688 NUṬME	نَعْوَمَة
689 QABR	قَبْر
690 QAFĀ	قَفَا
691 QAHĤ	قَح
692 QĀṢŪM	قَيْصُوم
693 QALĀYĪD	قَلَابِد
694 QALB	قَلْبِي
695 QAMAṢ	قَمَاص
696 QĀMĀ	قَامِي
697 QANAF	قَنْف
698 QANĪ	قَنْبِي
699 QĀQĀ	قَاقَا
700 QARĀ'	قَرَاء
701 QĀRAH	قَارَح
702 QARAQ	قَرَق
703 QARDE	قَرْدَة
704 QARN	قَرْن
705 QARŪ	(plur. QURŪN) قُرُون
706 QĀSIL	قَاصِل
707 QASĪR	قَصِير
708 QASṢĀṢ	قَصَاص
709 QATĀ	قَطَا
710 QATT	قَتَّ
711 QĀUWĀLĪ	قَوَالِي
712 QĀYD	قَيْد
713 QĀYN	قَيْن
714 QĀYSĪ	قَيْسِي
715 QĀZĀT	قَاظَات
716 QIDAH	قِدَح
717 QIDILĪ	قِدِيلِي (Qidilī)
718 QINNE	قِنَّه
719 QINYĀN	قِنْيَان
720 QIRAT	قِرَط
721 QIRBE	قِرْبَة
722 QIRĪE	(plur. QIRAB) قِرَب
723 QISHR	قِشْر

724 QIṢMET KHARSHAT FARAS	قِصْمَة خَرَشَت فَارَس
725 QIYĀD	قِيَاد
726 QIYUS	قِيُوص
727 QLAḤA	قِلْعِي
728 QSHAR	قِشْرَة
729 QUBLE	قِبْلَة
730 QUDAĪHA	قُدَايْحَة
731 QULĪ	قُلِي
732 QUMĪYE	قَوْمِيَّة
733 QUNFUDH	قَنْفَد
734 QURĀYE	قُرَايَة
735 QURŪS	(plur. QIRĪ) قُرِي
736 QUSH	قِش
737 QUṢṢE	قِصَّة
738 QUṢUBE	قِصْبَة
739 RA'ADIN	رَعْدَن
740 RA'ĀS	رَعَّاس
741 RA'ĀYL	رَعِيل
742 RABĀ'	رَبَاع
743 RABĀDET (RABĀD)	رَبَاذَة (رَبَاذ)
744 RABĀBE	رَبَابَة
745 RABDĀN	رَبْدَان
746 RABĪ'	(plur. RABDE) رَبِيع
747 RABSHĀ	(see ZIRQĀ)
748 RĀDĪ	رَاذِي
749 RADĪF	(رَدِيف) (plur. RUDAFĀ) دِفَاء
750 RADWĀN	رَضْوَان
751 RAFĪQ	رَفِيق
752 RĀGHIDET	(plur. RUFĀQĀ) رَغِيفَة
753 RĀGHŪS	رَغُوس
754 RAḤWĀN	رَحْوَان
755 RĀ' AL MABBAT	رَاعِي الْمَرْبِط
756 RAKAZAT	رَكْظَت
757 RAKBA	رَكْبَة
758 RAKIZHAṬIMAH	رَكْظَة جَمْعِي
759 RAKŪB	رَكُوب
760 RAMAK	رَمَاك
761 RAMAT	رَمَت

762 RAQABE رقبه
 763 RAQIQ رقيق
 764 RAQWAH رقوة
 765 RÂS رأس
 766 RÂS (AL) ÂBYÂD رأس الأبيض
 767 RASAKH رسخ
 768 RASAN رستن
 769 RÂS (AL) BIDD رأس البدد
 770 RÂS (AL) FIDÂW رأس الفداوى
 771 RASHME رشنه
 772 RAŞÎ'A رصيعه
 773 RAÛ DÂT روضات
 774 RAW'Â روعاء
 775 RÂWÎYE (sem. ARWA' (روى)
 776 RÎH ريح
 777 RIJLE رجلة
 778 RIKÂB ركاب
 779 RIMÂH رماح
 780 RIMÂLÎ رماحي
 781 RÎME ريمه
 782 RÎSHÂN ريشيات
 783 RU'ÂL (sem. RÎSHE ريشه)
 784 RU'ÂLÎ روابلي
 785 RUBÂ ربا
 786 RUBÂ' رباء
 787 RUBÂT رباط
 788 RÛ DÂN رودان
 789 RUDDÂU NAFS AL-FARAS ردد و نفس الفرس
 790 RUGHWE رغو
 791 RUKB ركب
 792 RUKBE ركبة
 793 RUMAKE رماكه
 794 RUMH رصح
 795 RUMME (sem. RIMÂH رصح)
 796 RUQUBE رقبه
 797 RUŞÂS رصاص
 798 RUŞIHIN ASH-BITû رشن الكيطو
 799 SÂ' ساع
 800 RUT A (see ARTA) روطه

801 SA'ÂDE سعاده
 802 SA'ATAT HA صعطنة
 803 SABBÂH سباح
 804 SABHE سبه
 805 SABÎBA سبيبه
 806 SÂBIQ FARAS AS-SÂPIQ فرس السابيق
 807 SABTE سبتنه
 808 SABÛ' سبع
 809 ŞADA' صدع
 810 ŞA'DAN سعدان
 811 (sem. SA'DE سعده) ŞADR صدر
 812 SA'D (AR-) RAKÛB سعد اركوب
 813 SA'DÂYN سعدين
 814 ŞADR صدر
 815 SAFA سفى
 816 ŞAFAR (see ASFAR)
 817 ŞAFÂT ASSAFÂ صفاة الصفا
 818 ŞAFFAFAT HA AL-'ANÂN 'ALA AL-FARAS سفافهم العنان على الفرس
 819 ŞÂFINÂT صافيات
 820 ŞAFRÂ صفراد
 821 ŞAFÛN ÂKHÎÂ AKHÂMAT صفون اخيا
 822 ŞAHÎH صحيح
 823 SÂ' ساعي
 824 SÂ'id سويد
 825 SÂ'IS سابس
 826 ŞAÎYÂH صيحاء
 827 SAKAYB (SAKÎB) ساكيب
 828 ŞALB (sem. ŞAKBE ساكبه) صلب
 829 ŞAKIK صاك
 830 ŞALÂ صلا
 831 (plur. SALAWÂT صلوات) ŞALÂH AD-DÎN صلاح الدين
 832 SALÎM سليم
 833 ŞALŞALET صلصلة
 834 SÂM سام
 835 ŞÂM صام
 836 SALÛQÎ (sem. سلو قبة) سلو قبي
 837 (sem. SULQÂN سلقان) SAMÂNÂ سمانا
 838 SAMH سمح

839	<u>SAMHÂN</u>	سمحان
840	<u>SAMNE</u> (sem. SAMHE)	سمنه
841	<u>SAMNÎ</u>	سمني
842	<u>ŠANA'</u>	صنع
843	<u>SANÂM</u>	سنام
844	<u>ŠANAM</u>	صنم
845	<u>ŠÂNI'</u>	صانع
846	<u>ŠANĪET</u> (pent. ŠUNNÂ')	صنعة (صناع)
847	<u>ŠAQF</u>	سققا
848	<u>ŠAQL</u>	صقل
49	<u>ŠAQLÂWÎ</u>	صقلاوي
50	<u>ŠAQ</u> (sem. ŠAQLAWÎYE)	صق
851	<u>ŠAQWA</u>	سقوة
852	<u>ŠARA'</u> (DARA')	صرع
853	<u>ŠARĀN</u>	سرعان
854	<u>ŠÂRÎ</u>	ساري
855	<u>ŠARJ</u>	سرج
856	<u>ŠARŠŪR AL-ĪDHING</u>	سرصور (إي)
857	<u>ŠARUD</u>	سرود
858	<u>ŠÂUR</u> (ĀDĪ or UMM)	سور
859	<u>ŠÂUWQANA</u>	سوقه
860	<u>ŠAWÂBIQ</u> (سوقه)	سوابق
861	<u>ŠÂYD</u>	صيد
862	<u>SAYF</u>	سيف
863	<u>SÂYL</u>	سيل
864	<u>ŠABAKE</u>	شباكة
865	<u>ŠABBŪH</u>	شبهوه
866	<u>ŠADDÂHÎ</u>	شداجر
867	<u>ŠADĪET</u>	شدية
868	<u>ŠAHAM</u>	شهم
869	<u>ŠAHWÂN</u>	شهودن
870	<u>ŠAĀIL</u>	شعيل
871	<u>ŠAĀIR</u>	شعر
872	<u>ŠAĪR</u>	شعير
873	<u>ŠĀKILE</u>	شاكلة
874	<u>ŠAĀLÂ</u>	شعلا
875	<u>ŠĀM</u> (misc. form: ĀSHĀL)	شام (شعل)
876	<u>ŠĀME</u>	شامة

877	<u>ŠĀMIYE</u>	شما مية
878	<u>ŠAMMARÎ</u>	شمري
879	<u>ŠANÎN</u>	شنيين
880	<u>ŠAQRA AL-ĀY</u>	شقا الجيب
881	<u>ŠAQRA</u>	شقراء
882	<u>ŠARĀBÎ</u> (sem. ASHQR)	شرابي
883	<u>ŠARBÂN</u>	شربان
884	<u>ŠARFĀT</u>	شرفات
885	<u>ŠARĪF</u>	شريف
886	<u>ŠARRĪK</u> (pent. SHURAFĀ)	شريك (شرفاء)
887	<u>ŠARRĀK</u>	شراكي
888	<u>ŠĀSHĀT</u>	شاشات
889	<u>ŠĀSHĀT</u>	شاشات
890	<u>ŠĀNK</u> (sem. SHĪYĀH)	شني
891	<u>ŠĀUWĀF</u>	شواواف
892	<u>ŠĀWWASHAT</u>	شواوشات
893	<u>ŠĀYBÎ</u>	شيببي
894	<u>ŠĀYKH</u>	شيوخ
895	<u>ŠĀZ</u>	شاز
896	<u>ŠĪĀT</u>	شيات
897	<u>ŠIBRE</u>	شبر
898	<u>ŠĪBRĀYN</u> (sem. SHĪBRĀYN)	شبرين
899	<u>ŠILŪ</u>	شلى
900	<u>ŠIMĀLÎ</u>	شمالى
901	<u>ŠIRĀ'</u>	شرا
902	<u>ŠIRĪKE BIL-FARAS</u>	شريكه بالفارس
903	<u>ŠIYĀH</u>	شياه
904	<u>ŠTŪR</u>	شطور
905	<u>ŠUĀYFÎ</u>	شعيفي
906	<u>ŠUĀYLĀ</u>	شعيل
907	<u>ŠUB-DIZ</u>	شبدز
908	<u>ŠUMĀYTE</u>	شميطه
909	<u>ŠUNĀYNĀN</u>	شنيان
910	<u>ŠURAB ET AR-RĪH</u>	شربة الريح
911	<u>ŠUWĀYE</u>	شويه
912	<u>ŠUWĀYMAN</u>	شويمان
913	<u>ŠUWĀYRĪYE</u>	شويرية
914	<u>ŠIBĪB</u>	شبيب

915 SİDLÎ سدلى
 916 SİKİME سكيمة
 917 SİLA TITBA' AR-RÂGHİB (السلة) سلة
 918 SİMRÎ سمري
 919 SİMT سبط
 920 SİNSİLE سنسلة
 921 SİRR (see SURRE) سر
 922 SİRWÂL سروال
 923 SİTÂM AL-BULÂD سظام البلاد
 924 SİYÂD صياد
 925 SİYÂQ سياق
 926 SİYÂR سيّار
 927 SİYÂSÂT AN-NİYÂSHÎN سيا سات النيا شين
 928 SİYÂSE سيا سة
 929 SMAYHA (سمو س) سميا سته
 930 SÛÂYTÎ صو بطى
 931 SUBÂYLÎ سبيلى
 932 SUBÂYNÎ سبينى
 933 SUBHE سبه
 934 SUHÂYNÎ صينى
 935 SUKÂYYÎT سكين
 936 SUKNÎ سكنى
 937 SUNMUNE سمنه
 938 SUNNA' (see SÂNÎ) (سنا) صنع
 939 SÛRE (ABU • UMM) صو رة
 940 SURRE (SİRR) سر رة
 941 SÛWÂH صو اح
 942 SÛWAYRIHE (see SÛWÂH) (صو ريحه) سويرحه
 943 TABÎN (ATBÎN) تبين
 944 TÂBÛR طا بور
 945 TADMÎR تد مير
 946 TAHÎRÂN طهيران
 947 TAHNÎB فحنيب
 948 TÂLÎ تالى
 949 TALÎQ طليق
 950 TALQ (طلوقه) طلق
 951 TALSÂ -see HAMRÂ TALSÂ
 952 TALÛQE طلو قة

953 TA'AM طعام
 954 TAMHÛR تمهور
 955 TAMRÎ تمرى
 956 TAQBÎB تقبيب
 957 TARAHAT طر حات
 958 TARB طرب
 959 TARDA طر دة
 960 TARÎKÎ طر كى
 961 TARÎQE طر يقه
 962 TARGIYÂ طر قى
 963 TARRÂD (TRÂD) (طراف) طر اد
 964 TATÂRÎ تترى
 965 TÂUQAN طوقان
 966 TAWÂSHÎ طوا شى
 967 TÂYS طيس
 968 THAFNE ثفنة
 969 THAMÎLE (THAMÂIL) (تمايل) تميله
 970 THÂÛT QARH ثاوى قرح
 971 TIBÎN تبين
 972 TIBN تب
 973 TIFEDH ظفد
 974 TIFÛKH نفوخ
 975 TIHADHUB تهذب
 976 TİQUDD QADDA تقد قدة
 977 TİRF طرف
 978 TITAKNÂSHIRAL-BIKHÛT BAYN ASH-SHIRVÂN تيا شير البخون بين الشيرفان
 979 TRABÛAT تربيات
 980 TRÂD (see TARRÂD) طر اد
 981 TRÂFYÎ (طراف) (طريقه) طر قى
 982 TURÂYSHÎ (طريقه) طر ينشى
 983 TUWÂYSÂN (TAÛS) (طو يسان) طو يسان
 984 UBAYE (ABD) (عبد) عبيد
 985 UBÂYRÂN (WUBÂYRÂN) (وبيران) وبيران
 986 UBÂYRIYA (وبيريه) عبيات
 987 UDÂYE (عبد) (عبد) عبيات
 988 UDÛYAT ASH-SHBÛ عديّة الشبو
 989 UFÂYNE عفينة
 990 UFAYNET AL-HÂFIR عفينة الحافر

991 'UFĀYR	عفير
992 'UKRAT ADH-DHĀYL	حكومت الذليل
993 'ULĪĀN	عليان
994 'UMĀNĪ	عماني
995 'UMĀYRĪ (UMR)	عميري
996 'UMSĀYS	حمسيس
997 'URF	عرف
998 'URQŪB (ĀBŪ 'ŪMM)	عرقوب
999 'URŪŪYE	عرو حبة
1000 WABRE	وبرة
1001 WADNĀN	ودنان
1002 WAFĪYE	وفية
1003 WAḤASH	وحش
1004 WAJA'	وجع
1005 WAJĀR	وجار
1006 WAJZE	وجزة
1007 WAQA'	وقع
1008 WAQBA	وقبه
1009 WĀRD	وارد
1010 WARĪDE	وردة
1011 WARK	وركي
1012 WĀSi'	واسع
1013 WASM	وسم
1014 WĀTĪ	والبي
1015 WAZĪF	وظيف
1016 WIRKĀYN	وركين
1017 WUBĀYRĀN (OBEYRAN)	وضيح
(see UBĀYRĀN)	
1018 WUDĀYHĪ (WUDĀHĀ)	ولد
1019 WULĪDAT	وسيع
1020 WUSĪ'	

1021 YĀBŪ	بابي
1022 YAD AL-KĀTIB	يد الكاتب
1023 YA'INNU (see 'ANNA)	
1024 YARBŪ'	يربوع
1025 YA'SŪB	يعسوب
1026 YA'YŪB	يعيوب
1027 Yi'ARRIZHE	يعرّ ظهه
1028 YINNU	ينن
1029 YITA QĀṢARŪN	ينقا صرون
1030 ZĀL	زال
1031 ZABĪRĪ	زبير
1032 ZABWE	ظبة
1033 ZĀD (AL-) MUṢĀFIR	زاد المسافر
1034 ZĀHĪ	زاهي
1035 ZĀHĪ (see 'INZĪHĪ)	زحي
1036 ZAHMŪL	زهمول
1037 ZĀHR	ظهر
1038 ZAKĀT	زكاة
1039 ZALLA	زالا
1040 ZĀMIL	زامل
1041 ZANDĀ'Ī	زندعي
1042 ZAQ'ĀB	زقعب
1043 ZĀYĪ	زبني
1044 ZIBB	زيب
1045 ZIBDIT AS-SAQF	زبدن السقف
1046 ZIKME	زكمه
1047 ZIRQĀ	زرقاء
1048 ZIYĀDE	زيادة
1049 ZU'ĀYR	زغير
1050 ZUFR	ظفر

VOCABULARY OF ARABIC HIPPOLOGY

1. (Upper) arm (of a horse).
2. Shepherd coat, the Bedouin toga (the coat without seam [John 19:23]). Substrain of 'UBAYYÂN.
3. Substrain of KUḤAYLÂN.
4. Substrain of KUḤAYLÂN.
5. Substrain of ṢAQLÂWÎ.
6. Substrain of KUḤAYLÂN.
7. Flea-bitten gray.
8. Substrain of KUḤAYLÂN.
9. Father of the horse.
10. "Father of leanness" (death by hunger or thirst).
11. "Father of strong thighs" (*janub* is the "South Wind").
12. "Father of the mane."
13. "Father of *najd*—horses" (nickname used in Iraq and Iran for a horse of the Arabian peninsula).
14. "Father of relentlessness"; a horse of great vitality.
15. "Father of quills (spines)." Hedgehog; nickname for a horse with coarse hair.
16. "Father of marauding." The wolf (*dhib*); nickname for a stray stallion.
17. Substrain of 'URQÛB.
18. Forearm.
19. Root of tail.
20. A dark horse—not to be mistaken for *daḥmâ*.
21. "Feather" (hairs) on the fetlock of a horse.
23. "Coursers"; race horses.
24. Ribs. See *Majafar*.
25. Substrain of KUḤAYLÂN.
26. Substrain of 'UBAYYÂN.
27. The characteristic concave profile of face (dish face) of the Arabian horse; the gazelle profile. See *Akhmas*.
28. "She has foaled." See also *Wulidat*.
29. Pouring water over a mare at the rain pool and rubbing the dirt from her coat.
30. The horse grew stout (fat).
31. Broken, bent. Substrain of HADBÂN and (ÂBĀ)'URQÛB.
32. The rider believes his horse gave the last ounce of strength to run, but it fooled him.
33. Bent, crippled. See *ʿAḥjâ*.
34. The bay horse.
35. The softest saddle pad is the leg (walk if riding hurts you). (Proverb.)
36. Stray horse.
37. Substrain of MUKHALLAD.
38. Substrain of KUḤAYLÂN.
39. "Old," antique, the fountainhead (e.g., *kuḥaylât al-ʿajûz*, the original KUḤAYLÂN strain).
40. Sweat blanket (under the saddle).
41. Feedbag hung upon the neck of the mare.
42. "Green"; any pale-colored horse (with flaxen mane and tail mostly).
43. "Green and water" (in the sense of degeneration by soft feed and not enough exercise).
44. "The last resort is firing a horse."
45. Straight, or slightly convex (Roman) facial profile. See *Āfnas*.
46. "Dump"; same as KHARAS. Substrain of KUḤAYLÂN.
47. Tribute (often paid with horses) for right of way, which the Bedouins demand for traversing their country or pasturing in their homeland.
48. Prepared horse feed, taken as emergency ration on a journey or a raid.
49. "ALCOHOL (disinfectant)" a fine black antimony powder to stain the eyelids. Substrain of KUḤAYLÂN.
50. "May God bless (the mare) in your keeping." (Used after the conclusion of a deal.)
51. Covering of a mare. See also *Shabbâh*.
52. A horse which has turned against the wind.
53. "Shoulder blades." See *Lâh*.
54. Substrain of KUḤAYLÂN.
55. "Long-living." Substrain of KUḤAYLÂN and DAḤMÂN.
56. Substrain of SHŴWAYMÂN.
57. A gray horse in general.
58. Foot, See *Riflê*.
59. Substrain of KUḤAYLÂN.
60. A Koran word for an Arabian horse.
61. Bedouin horse bridle with ring bit (*ʿazide*). See also *Rashme*.
62. The horse which is ready for the race.
63. Synonym for an old, pure-white mare of noble descent.
64. Nose. See *Marsan*.
65. Neck.
66. Substrain of ṢAQLÂWÎ.
67. Old Arabian verb, used to describe the neighing of a horse. See *Yinnu*.
68. Neck.
69. "The Dervish's goat." Substrain of KUḤAYLÂN.
70. "Heel," the correct word (anatomically speaking) for the hock of a horse.
71. Professional caravan leaders, camel-trad-

- ers, and horse-dealers from Qasim and Kuwait.
72. Riding a mare into water (rain pool or wadi).
 73. A race between two horses.
 74. The mare which conceived.
 75. "Conceived" (proved to be a pregnant mare). See *Iḡḡafat* and *Lugaḡhe*.
 76. Substrain of ṢAQLĀWĪ.
 77. A part of the shackles or the "bracelet" around the pastern.
 78. To burn the *wasm* (tribal mark) into the hide of a mare.
 79. Substrain of RĪSHĀN.
 80. (Possessor of) strong joints (hocks).
 81. Large knee joint. Substrain of ṢAQLĀWĪ.
 82. Desert hare; also nickname for horses. Substrain of KUḤAYLĀN.
 83. Muzzle (of a horse).
 84. A mare with her rider to pass in review.
 85. "Hock" (of a horse).
 86. "Lion." Substrain of KUḤAYLĀN.
 87. Mare with foal at foot.
 88. Substrain of ṢAQLĀWĪ.
 89. "Violent as wind" (metaphoric.)
 90. A solid, strong foundation. See *Āṣīl*.
 91. The fundament (the parts below the knees and hocks of a horse).
 92. Plural of *āṣīl*.
 93. Red bay horse with black markings.
 94. "Yellow"; used for old white horses. See also *Āṣḥ'āk*.
 95. Silver gray; a horse more white than gray. See also *Āṣfar*.
 96. Exercising a horse under the rider. See *Ṣana'* (teaching gaits).
 97. Cutting off the hair of a horse.
 98. Hair on pasterns.
 99. Substrain of ṢAQLĀWĪ.
 100. Substrain of MU'NIQ.
 101. Golden chestnut with the same color in mane and tail (also used for "blond"). See *Kumāyt*.
 102. "Pure." See *Āṣāle*—of the original *āsl* root. The genuine breed of Arabian horses (not the *kidish*).
 103. Muscles.
 104. A horse well taken care of.
 105. A horse that will bite.
 106. The riders left to capture something.
 107. Stumble.
 108. The word by which to call a mare. For camels, dogs, falcons, and other animals different words are used (*ad'i* for a falcon, *ishli* for a gazellehound, etc.).
 109. The free (rather wild, feral) horse; the noble, pure bred. Not *halik*, the cross between an ordinary and pure animal.
 110. A Turkish word; from AT, "horse." The Syrians use it often instead of *kidish* (ordinary bred horse).
 111. A horse is sold under the unwritten law of the *'utwa*: (1) if taken in a raid, the horse will always be returned to the purchaser; (2) after a raid the former owner will always receive his animals back from the tribe to whom he sold his mare; (3) the former owner of the mare never has to return any animals which he may capture from the tribe to whom he sold the horse.
 112. Old brood mare (twenty-one years at least). *'Aud* is the old stallion. See *Huṣan*.
 113. Crippled one (hunchback). See *Āhjan* and *Ā'waj*.
 114. The daughters of *ā'waj* (the famous stallion).
 115. Mountain horses of southern Arabia (Asir and Yemen).
 116. See *qārah*.
 117. The famous "crippled" (hunchback) stallion. Substrain of KUḤAYLĀN. *Ā'waj* is not a corruption of *'ajuz*. The legend is too common among the Nejd Arabs to be an Algerian invention.
 118. "One-eyed" horse.
 119. Wandering aimlessly about without its master.
 120. Substrain of ṢAQLĀWĪ.
 121. The mare which has to be taken to pasture with the milk camels (when they stay away for days), because she cannot be without milk in camp.
 122. Cheering, encouraging one's horse (to make happy).
 123. Substrain of KUḤAYLĀN.
 124. Strong and deep in the shoulder. Substrain of KUḤAYLĀN.
 125. "Bachelor" ("without a bride"); nickname for a young, unproved stallion.
 126. Ring bit of a Bedouin bridle. See *Anān* and *Rashme*.
 127. Thigh.
 128. "Blue" (horse), a bluish gray.
 129. White spot on lower lip, an unfavorable marking of a horse, according to superstitious Arabs.
 130. The horse which runs but saves its strength.
 131. The female mule. The legend reports that mules carried wood for the funeral pile on which the Chaldeans tried to sacrifice Abraham. Since that day the mules have

- been punished with sterility. Duldul was the famous one-eyed mule which Al-Muqaqis presented to the Prophet.
132. Substrain of *ṣāqlāwī*.
 133. The mare which had at least ten foals.
 134. "Of the ocean," one of the eight stallions of the Prophet's stud; also known under the name of Mandūb and Subhan, because Mohammed exclaimed, when this horse was victorious in a famous race: "Subhan Allah." *Bahri* is the legendary seahorse, also called *al-imsimah*, "the highest esteemed among the valued (horses)." *Bahri* also indicates the motion (the rolling and heaving) of the waves and in that sense also the motion of a spirited horse.
 135. Horses "from the urbans (village)."
 136. "End of strength," abused. The Arabian mare after a raid—tired, wounded, starved, and at the limit of her strength. In pre-Islamic times she was left to die beside the grave of her dead master.
 137. "Daughters of the wilderness (desert)"; nickname for the mares. *Banāt al-māʿ*, "daughters of the water"—mares raised in cultivated, irrigated districts (oases horses). *Banāt ar-riḥ*, "Daughters of the Wind," the never tiring, noble mares of the hot, dry highland desert.
 138. Condensed buttermilk. In dry conditions carried on raids, which, when mixed with water, serves as refreshing drink for men and their horses.
 139. One of the horses of Mohammed in the Battle of Bedr.
 140. White pigment spots around the eyes and other hairless parts of the face of a horse. Supposed to be caused by soft feed from irrigated fields; lack of dry highland herbs.
 141. Ordinary horses. See *kidīsh*. Other synonyms: *hajin*, *kuda*, *kudni*, *mafraḡ*, *makhadram*.
 142. Substrain of *HADBÂN*.
 143. "Cold-bellied," a cross between an ordinary mare and a pure stallion. Colloquial expression in Iraq.
 144. A watering place, three days distance from Kuwait on the way to Hayil, where Bedouins meet to sell and trade their horses.
 145. Abdomen, belly.
 146. Substrain of *KUḤAYLÂN*.
 147. The agreement which is made between two owners of a newly purchased mare to share also her offspring as common property. See also *Bī-milhāni*.
 148. "Hunger land," a district of poor pasture for horses.
 149. An agreement to purchase a mare outright. See *Marbaṭ*.
 150. "Daughter of the mare," an ordinary filly of unknown mare.
 151. "Daughter of the stallion," an ordinary filly of unknown stallion.
 152. "Daughter of milk," the camel which supplies the mare and her foal with her milk.
 153. A deal arranged between two owners of a newly purchased mare which gives to one the mare but to the other one the ownership of her first two foals.
 154. The *Fidʿan Sabaʿ* and *ʿAmarat* tribes, which are called the *Bishr-ʿAnaza*; also name for horses of the *Bishr* tribes.
 155. Stirrup buckle.
 156. Substrain of *HADBÂN*.
 157. The winged sexless steed of the Prophet Mohammed with the head of an angel and the face of a peacock.
 158. Upper lip (proboscis) of a horse.
 159. Stirrup strap.
 160. Substrain of *ṣāqlāwī*.
 161. Loud neighing. See *Ḥamḥaret*.
 162. Large lizard; also used for snakes. Applied as nickname for a horse with cowhocked legs.
 163. Horsefly.
 164. Herbage which has been gathered by the rider for his mare.
 165. To ride off (on a mare).
 166. Substrain of *ṣāqlāwī*.
 167. Substrain of *HADBÂN*.
 168. Famous stallion of the sixth century, raced against *Ghabrāʿ* for the prize of one hundred camels.
 169. Feminine form of *adham*.
 170. Substrain of *KUḤAYLÂN*.
 171. One of the *main strains* of Arabian horses. See *Adham*, *Dahmā*, *Mulūk*.
 172. "Early rise of the leopards." Substrain of *ʿUBAYYÂN*.
 173. Substrain of *JILFÂN*.
 174. Substrain of *KUḤAYLÂN*.
 175. "Domesticated, tame." Substrain of *KUḤAYLÂN*.
 176. Substrain of *KUḤAYLÂN*.
 177. The word of surrender; secures protection and life to a prisoner and the right to a captured owner of a mare to pay or promise a ransom for her.
 178. "One who has to show something"—a middleman, an auctioneer, a horse-trader.
 179. Substrain of *ṣāqlāwī*.
 180. "Blow" (kick).
 181. Substrain of *ʿUBAYYÂN*.

182. A mare on a hunt picking up quickly with the fleeing gazelles.
183. All medical plants and medicine in general used for man and beast.
184. Sores on the back of a horse from riding.
185. A species of wild desert oats which the horses like.
186. "Swirl" of hair of peculiar design on a horse.
187. "Udder" (of a mare).
188. To cut the throat of a horse (to relieve suffering).
189. "Lean condition," a horse in racing shape (after the ancient custom of artificially reducing weight),
190. The "male" of the species. See *Īnthā* (the "female").
191. "Wild as the sea" (metaphoric).
192. Tail of a horse; also a desert plant.
193. Elbow.
194. "Tail" of a horse; in classic Arabic *qhanab*.
195. Horsefly.
196. "Golden"; *shaqrā dhīḥūb*, "a golden chestnut."
197. Cannon bone (of a horse).
198. One of the twenty-two horses of the Prophet. See *Dāḥīs*.
199. Substrain of KUḤAYLĀN.
200. "Backbone" (vertebrae) of a horse. The name of Alī's famous sword.
201. A strain name of Arabian horses among the Iraq-Shammar tribes, but not among the 'Anaze.
202. The famous stallion of Dīnār al Ansārī, companion of the Prophet. The legend makes this stallion the sire of the KHĀMSI.
203. (Mother of) toil (hardships), though not signifying that the horse is a work animal.
204. Camel-skin armor, worn by the Bedouins and their horses until the last century as protection against lance and sword thrusts.
205. The "green" horse (the undistinguished "muddy" reddish-brown of a young horse which may turn into a solid gray later). See *Ākhḍar*.
206. "Frog," a big-bellied horse.
207. "Smoked one" (sodlike). Substrain of KUḤAYLĀN.
208. Mohammed's famous one-eyed mule.
209. Curling of hair under the belly between the udder and the navel. A good or bad omen according to superstition.
210. "The-sod-covered-one." Substrain of KUḤAYLĀN.
211. Substrain of 'UBAYYĀN.
212. Substrain of KUḤAYLĀN.
213. Substrain of ṢAQLĀWī.
214. Snorting.
215. Standing far apart between the forelegs (plenty room between the forearms).
216. Haunch (of a horse).
217. Scars on the skin of a horse from branding or firing.
218. Public display of horsemanship. *Khāyl fanṭās*, horses good for fantasias (circus horses we might say), not serious enough for raids and war. In general, the name given to the African (Barb) horses.
219. A stallion who covers mares without result.
220. "Mare," a collective name for horse. *Khāyl* is used as plural for mares. In Hebrew the similar word *parash* for horse and rider. As name for example in *Rabī'a al-Faras*—because *Rabī'a* inherited the stud of his family. *Rabī'a al-Faras* was the ancestor of the 'Anaze tribes and the third son of Nizar. (The oldest son—Iyad—migrated from central Arabia to Iraq; the second—Mudar—to Mecca and became the ancestor of the Prophet Mohammed.) See *Ḥuṣān* and *Khāyl*.
221. Substrain of HADBĀN.
222. "Horseman," cavalier, the rider, the one who stole a mare from the enemy (a most honorary degree). See *Khāyl*. The plural *fursān* is seldom heard; *sanām* is used instead.
223. A mare in heat.
224. Curly swirls of hair (are good signs on a horse) according to superstitious Arabs.
225. "Poll" (of a horse).
226. The filly during her first year.
227. Upper lip (proboscis.) See *Āfnas*.
228. Stallion (used for horse—and camel—stallion).
229. "Above the highest" (first class), in regard to the quality of a horse. (Colloquial expression.)
230. Horses from the Furat (Euphrates) region, also from Mossul, the Khabur, the Sinjar-Shammar, the Tayy and northern Fid'an tribes. Not a strain name or special breed, as some authors have it (e.g., Faradsiye).
231. Substrain of JILFĀN.
232. "Dust-colored" horse. See *Dāḥīs*.
233. Furious one.
234. Substrain of HADBĀN.
235. A horse "going astray."
236. "The pregnant cloud." A horse of the king of Hira of the family of Al-Mundhir; also the name of the sword of Yasar.

237. The horse drinks from the skin on the ground or from a bowl, because no drop of water can be wasted.
238. Substrain of KUḤAYLÂN.
239. The attack of horsemen in a raid.
240. Substrain of KUḤAYLÂN.
241. Substrain of ḤAMDÂNÎ.
242. Substrain of ṢAQLÂWÎ.
243. "Gazelle." Substrain of KUḤAYLÂN.
244. Victorious raider on horseback.
245. A recaptured mare or a filly by a mare which was lost in a raid to the enemy.
246. A species of cactus, used for medicinal purposes with sick horses.
247. "Raven-colored," (*dahâma ghurâbiye*—dark-colored or black like a raven; the young iron grays often have this coat before they turn light and white).
248. "Painted," a long white blaze (only over the whole face, not including the nostrils or upper lip). See *Qidaḥ*.
249. The one who "swims" ahead of all others (the picture of the race horses as they seem to "drift" by, apparently without any effort). See also *Sâbiq*.
250. Sound of hooves.
251. "My beloved (friend)," an endearing term for a child or horse.
252. Horse taken on a pilgrimage (for a sacred cause). Synonym: *kanayis*. See also *Rubâṭ*.
253. "Coverlet" (covering) for a horse.
254. To call a horse. See *Ḥâl*, *Hâqat*, *Hî*, *Hilhal*.
255. A trained foal.
256. Fem. HADBE—long, silky hair; long eyelashes; also the long fringes of an unfinished woven piece of a Damascene veil. One of the *main strains* of Arabian horses.
257. The hole in the center of a horseshoe. See *Ḥaḥlâne*.
258. Remains satisfied (happy), the seventh or eighth horse in a race.
259. "Iron" (shackles) to fetter a mare's forelegs. See *Ṣakk*. *Ḥadidâ al-Khâyl*, "shackle the horses' (forelegs)."
260. "Oasis (stud farm) of Arabian horses."
261. "Descended from the messenger of victory." Substrain of 'UBAYYÂN.
262. Substrain of KUḤAYLÂN and MU'NIQÎ.
263. "Excellent"—a proved sire.
264. "unshod; without shoes." Substrain of SAMḤÂN.
265. The Bedouin "horseshoe" with a hole in the center. See *Ḥadha'* and *Na'î*.
266. Digger, spade; the hoof of a horse.
267. The horse of Suraq ibn Malik, which disappeared with him into the earth when they tried to pursue the Prophet.
268. The famous stallion of the Banu-Talib.
269. White marking on the foot of a horse.
270. Substrain of KUḤAYLÂN.
271. To call a horse. See *Ḥad*, *Hâqat*, *Hî*, *Hilhal*.
272. Back (the part which carries the rider).
273. Leather cinch to hold the saddle; blanket (sheep, panther, or antelope skin).
274. That which is "permitted" (to breed a certain strain, for example), in contrast to *haram*, that which is untouchable in the sense of "forbidden."
275. "Sweet one." Substrain of KUḤAYLÂN.
276. The gentle, kind mare.
277. "Blinding," "lightning." Substrain of KUḤAYLÂN.
278. Desert plant with pale-blue flowers, covered with soft prickly down, favorite herb-age of the horses.
279. Fem. ḤAMDÂNÎYE. According to the traditions one of the two most favored mares of the Prophet Mohammed, sired by Dinâri (the stallion of Dinar al-Ansari). One of the *main strains* of Arabian horses.
280. Soft whinnying. See *Ânna*.
281. Neighing. See *Ḍaba'*.
282. Substrain of HADBÂN.
283. Beating against the ground with the hooves.
284. Inflammation of the fetlock in a horse.
285. A bay mare with black markings (no white at all). *Ḥamrâ muḥammase*, a dark bay whose coat has the color of roasted coffee.
286. "Behold, a bay steps under me like a pliant branch."
287. The cry of the horseman to stop his mare instantly.
288. Jaw of a horse. *Al-ḥank mustadir wa wus'*—round (disklike) jowls set wide apart. See also *Khad* and *Warîde*.
289. Neck rope.
290. A horse which does not overreach with his hindfeet.
291. To call a horse. See *Ḥad*, *Hâl*, *Hî*, *Hilhal*.
292. Substrain of HADBÂN.
293. Saddle sore.
294. Gallop.
295. Leading a horse.
296. Shoulder of a horse.
297. Substrain of 'UBAYYÂN.
298. The feedbag is tied to the neck of the mare.
299. Substrain of KUḤAYLÂN.
300. "Horse-dealer." See *Jânbâz*.
301. A cross between a pure and an ordinary horse; not to be confused with *'atîq* (*âtîk*, as some write).

302. A noble horse. See *Âşîl*, *Najîb*.
303. Exclamation of impatience to animate a horse to pick up its failing strength. Substrain of *SA'DAN*.
304. "Well trained"; "coming from the South." Substrain of *KUḤAYLÂN*.
305. Hair curls on the sides of the neck of a horse (superstitious marks).
306. One of Mohammed's stallions in the Battle of Bedr (some authors wrote the name *Ḥiazûn* or *Ḥuisûn*). *Hâyẓûme* was the name of the mare which the Archangel Gabriel rode. She was in heat and led the stallion on which Pharaoh rode into the Red Sea. Since then *Hâyẓûme* is called also *Faras al-Ḥaya*—"the horse (mare) of life."
307. Sterile mare.
308. One of Mohammed's horses.
309. To call a horse. See *Ḥad*, *Hâl*, *Ḥaqat*, *Hâl-hal*.
310. A mare with her rider showing off at a festival; same as *tihadhub*.
311. Amulet tied into the mane or halter of a horse.
312. Girth.
313. "Of *Hijâz*," a horse from western Arabia; does not indicate a pure strain.
314. Synonym for "mare." See *Jivâd*.
315. Eyelashes of a horse.
316. Girth ring of the Bedouin saddle pad.
317. To call a horse.
318. Special horse pastures near a migrating clan or a village.
319. Ordinary horse (colloquial).
320. Barb horses, named after the sixth descendant of Yûqtan (Joktan, who lived to see the destruction of Babel).
321. "Horse" (colloquial).
322. Henna is gained from the dry leaves of *Lawsonia inermis*. Arab women use it to dye their fingernails and the inside of their hands, their feet and hair; old men to dye their beards; also used to dye the flaxen manes and tails of horses. The Bedouins call the blood of gazelles *ḥinnâ* and rub it on the throat and neck of their horses after a gazelle hunt. See also *Nabq*.
323. The three-year-old horse.
324. "Cane (riding crop) of the bachelor," the famous horse of Raiyan ibn Huways.
325. Saddle girth.
326. Substrain of *ŞAQLÂWî*.
327. "Horseshoe." See *Naʿl*.
328. "Hole" or "cave." Substrain of *ʿUBAYYÂN*.
329. "Convincing proof"—birth certificate. The pedigree of a horse.
330. "Protector." Substrain of *KUḤAYLÂN*.
331. Substrain of *ʿUBAYYÂN*.
332. Substrain of *KUḤAYLÂN*.
333. Substrain of *MUʿNIQî*.
334. (Bedouin) woman. Substrain of *ʿUBAYYÂN*.
335. "A strong refuge," the stallion in the prime of his life, that is, from his fifth to twentieth year. *ʿAud* is the old stallion. *Ḥuşân* is derived from *ḥaşşâna*, "protecting," and *ḥisn*, "a fortress." See also *ramak* and *faras* and the diminutive form *ḥusayni*, "little fortress," the desert fox. See also *Khâyl*.
336. "The stallion which proved to be excellent for breeding purpose."
337. The yearling foal.
338. Rust-brown color of a horse.
339. The filly in her second year.
340. "Hand" (foreleg). *Îdâyn*, "both hands" (forelegs).
341. Festival (celebrated with display of horsemanship).
342. Halter without bit and reins, only with a nose chain and single rope.
343. "Ear" of a horse.
344. "Lower lip" of a horse.
345. Substrain of *ŞAQLÂWî*.
346. The female of the species—like a mare, a woman, a gazelle.
347. Following the stranger. Substrain of *HADBÂN*, *Zaḥi-Thahi*.
348. The mare's heat has passed; she has not been covered. See *Aqzabat*.
349. A witness who knows a lost mare, helps to find her, and testifies as to her owner.
350. Mesopotamia, old Shinar; the old Chaldea, the land of Babil. Iraq is used for a horse of Iraq (no connection with a strain name).
351. Mounted leader of the leash of gazelle hounds following the chase.
352. Camomile, loved by the desert horses; also, in general, used for herbage.
353. Substrain of *KUḤAYLÂN*.
354. Ishmael, son of Abraham and his bond-woman Hagar. Ishmael (according to Bedouin tradition) was the first Arab who caught a wild mare in the desert and rode her.
355. Stable.
356. A horse is tried out to run all it can.
357. "Burden-carrier," an ordinary horse. (Colloquial expression.)
358. Forehead. See *Jibha*.
359. "Brought and carried away." In the sense of: "rode with me hither and back again."
360. Substrain of *HADBÂN* and *JILFÂN*.

361. Shying of a horse.
362. Cross between an Arab stallion and a Persian mare (Kurdish, Turkoman).
363. The cry of the horseman to start his mare into a gallop.
364. The place on her body which the mare is able to reach with the tip of her tail.
365. Male gazelle. Substrain of 'UBAYYÂN.
366. Scold a horse. See JALLÂBÎ and *Shaham*.
367. Substrain of KUḤAYLÂN.
368. "Side" of a horse; the "barrel."
369. The horse is too tired to be ridden.
370. Headstrong. The famous horse of Muslim ibn 'Amr al-Bahili.
371. To hand over the lead horse (to allow someone to lead the mare).
372. A Persian word, "one who gambles with his life" (a liar); a horse-trader. This word is also used in Iraq. See *Ḥaṣṣân*.
373. To cover a mare up and let her perspire in the sun.
374. See *Âbû Junûb*.
375. "Naked one," the locust; also a horse with a skin disease, causing bald spots.
376. Thickness (width) of the head.
377. "Bell." Substrain of KUḤAYLÂN; substrain of JURÂYS and 'UBAYYÂN.
378. Substrain of KUḤAYLÂN.
379. Substrain of KUḤAYLÂN.
380. A game, played on horseback, with palm-leaf stalks four feet long and weighing about five pounds.
381. "Gargler" (groaner); roaring, a disease of horses.
382. "Trailer," a horse which touches the ground with his tail.
383. Testing, trying out a stallion.
384. The horse left at the tent and not allowed to feed on the pasture because it may be stolen. Synonyms: *majarre* (a dapple gray mare, but in this particular sense a sick horse, covered with specks of sweat or foam) and *qaṣîr* ("held short," when there is no time to let the horse seek forage away from the tent).
385. Mounted "scout," spy.
386. Substrain of KUḤAYLÂN.
387. Substrain of KUḤAYLÂN.
388. Substrain of HADBÂN.
389. "Pearl." Substrain of KUḤAYLÂN.
390. Wide, large (between the jowls, for example).
391. "Not drinking," horses during spring-pasture season, when they do not have to be watered or drink only the milk of camels.
392. (Horses of the) "island" (as the land be-
tween the two rivers Euphrates and Tigris is called). See 'Irâq.
393. The shieldlike forehead, typical of the Arabian horses. The *sâ'id* is the middle of the *jibha* seen from front.
394. Wide, bulging forehead.
395. A white marking on the near (left) fore and another on the off (right) hind leg (considered bad luck by superstitious Arabs).
396. The two-year-old foal.
397. The filly in her third year.
398. The first-born foal, "original."
399. The camel tracks in the Harra Desert. Substrain of ṢAQLÂWÎ.
400. Substrain of ḤAMDÂNÎ.
401. Pack saddle.
402. Camel dung. Dry, hard camel dung gives enough heat to serve the blacksmith as charcoals.
403. "The stripped one." *Jîlîrî*, "a mouth filled with laughter." See also *Dâḥîs*. One of the *main strains* of Arabian horses.
404. The sacred, never decaying sycamore tree of Desert Arabia, which was used by the ancients as wood for their sarcophagi (containing the mummies of men, horses, and other animals). Substrain of KUḤAYLÂN.
405. Wings of the bird (refers to the powerful shoulder movement). Substrain of KUḤAYLÂN.
406. Mange of a horse.
407. Part of the neck to which the amulet is fastened.
408. Named after a subtribe of the Shammar tribe. Substrain of ṢAQLÂWÎ.
409. "Gruel" for horses made from barley groats.
410. Goat leather skins, to carry water for horses.
411. Track, imprint of a horse's hoof in the sand.
412. Synonym for "mare." See *Hijr*.
413. Collective name of the famous eight stallions of Mirwan ibn Zinba', the 'Abbasite.
414. Substrain of ÂBŪ JUNŪB and KUḤAYLÂN.
415. Substrain of JARÎBE.
416. Diminutive form of JARAS.
417. Wounded horse.
418. Sacred forelock of a horse.
419. Substrain of KUḤAYLÂN.
420. Liver.
421. Proverb: "The rider's grave is always open."
422. Withers.
423. Chest.

424. Mounting a horse.
425. Small nipples of the udder.
426. "Like a wild antelope-cow" (the Bedouins compare Ishmael's wild mare to an oryx antelope).
427. Saddle horn or a ring fastened to the raised front of the saddle pad.
428. An "unceasingly charging" horse.
429. Substrain of KUḤAYLÂN.
430. Shoulder.
431. Substrain of KUḤAYLÂN.
432. Great width (depth) of the disklike jaw-bones. See also *Hanak* and *Waride*.
433. "Pawing" (digging up).
434. A mare in heat.
435. Substrain of KUḤAYLÂN.
436. "Green"; used for "black."
437. Dust-gray color.
438. Substrain of SAQLÂWF.
439. "Fifth one." Substrain of KUḤAYLÂN.
440. Horse standing on its hind legs jumps forward.
441. The "Five" (most famous strains of Arabian horses). According to regional differences, the legendary Khamse vary.
442. Substrain of KUḤAYLÂN.
443. Substrain of AKHRAS.
444. "Scratched (lips)" from pasturing on prickly desert plants. Substrain of 'UBAYYÂN.
445. "White front" (a large blaze).
446. A "rocking" horse.
447. Substrain of RABDÂN.
448. The covering of a mare in the late afternoon or evening (in the morning it is called *naṭṭi*).
449. "Bridegroom" (the circumcised one), a stallion with his right ear tip cut off as a superstitious mark or as a sign that the stallion has been selected as a stud horse.
450. The horse who swings (sways) his tail from one side to the other.
451. See *Khâyl*.
452. "Horse." See also *Faras*, *Ḥuṣân*, *Khâyyâl*.
453. "The bellies of the horses contain treasures and their backs help to win power."
454. "The reins of horses are snakes, and death dwells on their backs." A proverb against the revengeful neighbors.
455. Rider, cavalier.
456. "Scarecrow." The herdsman sticks his riding wand into the earth and hangs his shepherd coat over it while he lies down to sleep or goes off to see someone. The scarecrow prevents the horses and camels from leaving the pasture; they do not go astray.
457. "The meditating horses." Creatures of a higher caste than the ordinary (not purebred) ones; horses which do not act by instinct alone, but by intelligent reasoning.
458. Saddle cinch (leather loop under the saddle pad with ring [*ḥilâq*] to whose other end is fastened the girth [*ḥizâm*]).
459. Purple hollyhocks of the desert (Job 30:4), favorite pasture for horses.
460. "Green one" (diminutive form). Substrain of 'UBAYYÂN.
461. Substrain of DAḤMÂN.
462. Milk thistle, a favorite pasture.
463. "Mute," "dumb." Substrain of KUḤAYLÂN, WADNÂN.
464. Substrain of RABDÂN.
465. Testicles of the stallion.
466. The ordinary horse, the doubtful or despised horse. *Kadasha* means to do manual labor for a living.
467. "Dogs of the wilderness," nickname of the Sulaybi, the "gypsies" of Arabia, people of unknown origin. The Sulaybi breed no horses but are famous for the donkeys they raise (which they have crossed with wild asses). Khiluwi, the "lonely ones," is another nickname for the Sulaybi.
468. "Horses." See *Khâyl*. (Colloquial.)
469. The quick attack and quick retreat.
470. "Shank" of a horse.
471. Elbow of a horse.
472. "Broad heads as if of monsters" (so wide are the foreheads of these horses that they appear ugly, terrifying).
473. Ram (diminutive form). One of the *main strains* of Arabian horses. Substrain of KUḤAYLÂN.
474. The antimony-colored, (black-) skinned antelope—the wild mare of Ishmael. See AL-KUḤL.
475. Sorrel (date color) with dark chestnut mane and tail. The favorite color of Arabian horses among the Bedouins. See *Âshqar*.
476. Substrain of 'UBAYYÂN.
477. Substrain of DAḤMÂN.
478. Substrain of KUḤAYLÂN.
479. "Touching (covering) the ground with his tail." One of the eight stallions of the Prophet; presented to him by Rabi' al-Bara.
480. "Permitted meat" ("kosher"). In pre-Islamic times among some tribes the eating of horse flesh was allowed.
481. Belly drawn up.

482. "Boxed on the ears"—because he lost a race.
483. Supple, lithe horse.
484. "Tied with shackles." Substrain of KUḤAYLÂN. Al-Lizâz was one of the eight famous stallions of Mohammed.
485. A cloth cover to which the saddle cushion is fastened (or sewn).
486. Substrain of 'UBAYYÂN.
487. A horse play; a mock battle of riders.
488. The two-year-old foal.
489. Shoulder blade.
490. "Pregnant" (mare). See *Aqzabât*.
491. Old Shammar raider's song, mentioned also by Lady Anne Blunt. In correct English translation: "I would not ride a mere *dhalûl*, though lovely to me her saddle. Let me be mounted on a mare, a bay mare, swift and quick to turn."
492. The crest, the top of the neck of a horse.
493. "Brisket," the part under the chest between the forearms of a horse.
494. Substrain of KUḤAYLÂN.
495. "Established," acknowledged—similar to *âşîl* (pure).
496. The curved throat (where the windpipe enters between the jowls)—one of the eight distinctive and very characteristic points of the pure Arabian horse.
497. He let the horse go to pasture.
498. A Barb (North African) horse. See *Ḥimyar*.
499. A horse which runs with all possible strength and speed.
500. He made the horse run; "He urged the horse ahead of all others."
501. Dropping the halter rope to slow the horse down.
502. Half-blood, "sons or daughters of horses" from the studs of settled princes and rulers of Inner Arabia. The true Bedouin will not allow his mares to be covered with stallions of the towns and oases (no matter how good).
503. Substrain of HADBÂN.
504. The stallion of Dhighaymi of the Banu 'Ubayde (time of the Prophet Mohammed). Sire of the (Al-)Khamse of Mahhur: (1) Milwah; (2) Tuwaysiye; (3) Rîme (the "lost" strain—the Mu'waj are supposed to descend from the ancient Rîme strain; but others call the first SAQLÂWÎ a KUḤAYLE-MU'WÂJ, whose name was Rîme); (4) Kubâyshe; and (5) Mukhalladiye.
505. A horse tied up.
506. Substrain of KUḤAYLÂN.
507. Wide-sprung ribs (big "barrel" chest).
508. Milky Way, "the space of migrations." A dapple gray whose coat seems to be covered with stars like the Milky Way; also of a stolen horse that arrived in an exhausted condition, covered with flecks of foam or sweat.
509. "Short-coupling" (between ribs and hip-bone).
510. Substrain of KUḤAYLÂN.
511. No white markings on all feet.
512. The horse bends its head.
513. Swelling udder (nipples) of the mare.
514. To take the halter off. See *'Adhr ḥakam* (to lay the halter on).
515. Gray horse.
516. Substrain of SAQLÂWÎ.
517. Tip of the tail. See *Shâ'il*.
518. "Property" (white slaves; the Mamluk Sultans of Egypt were of Turkish Circassian descent). A white gelding (colloquial expression in Egypt).
519. The mare which has just been bred.
520. Substrain of KUḤAYLÂN.
521. (Children of) Ma'naq. See MU'NIQÎ.
522. "Spear," a fast, long, narrow horse. The famous horse of Abu Talhe Zayd ibn Sahl al-Ansari, which the Prophet Mohammed rode and said: "We found him in motion like the ocean." See *Bahri*.
523. Soft saddle pads.
524. Substrain of KUḤAYLÂN.
525. The horse which could not keep up with the other horses.
526. The victorious horse in a race. (Colloquial.)
527. Invented the artificial sweating method of getting a horse in lean race shape by wrapping the animal in blankets while in training. See *Tadmîr*.
528. Coronet of hair above the hoof.
529. Substrain of KUḤAYLÂN and 'URF.
530. Resting place for men and horses during the night.
531. A saddle pad with cinch.
532. "Connection" (interwoven), the "substrain"; also the secluded place where a mare is bred. See also *Rasan* (a rope), used too for a substrain. *Marbaṭ* is also applied to a mare which is owned ("tied") by two owners. He who stables and takes care of her is called Ra'i al-Marbaṭ.
533. Two riders on a race camel. One of the men leads a mare. See *Radîf*.
534. Substrain of SAQLÂWÎ.
535. Light saddle for a desert horse. See also *Mirsîḥe*.

536. "Ship," same word used for the stirrup.
See also *Rikâb*.
537. The horse has to be urged to run.
538. Nose. See *Ânf*.
539. Substrain of KUḤAYLÂN.
540. The pasture for horses.
541. "Sufficiently known," attesting that a horse's strain and substrain can be attested by true witnesses. Not a strain name, as some have it.
542. Going away (in the sense of leaving, straying away).
543. Substrain of ṢAQLÂWÎ.
544. Highest point of croup of a horse.
545. Substrain of RABDÂN.
546. Chin groove of a horse.
547. Looking for a stallion to breed to a mare.
548. See *Mahhâr*.
549. "Tapering," "streamlined."
550. "Stolen" horse.
551. "Happy one." Substrain of MUKHALLAD.
552. The horse increases its speed.
553. Shaking the mane and bridle.
554. A firm, stout horse.
555. Bedouin saddle. See *Ma'rage*.
556. "Rose water," a horse with a mixed coat of gray (or white) and reddish (rust-brown) hair.
557. Race track (hippodrome, arena for horse games).
558. An affected, swaying gait. *Rahwân* (-gait). Substrain of KUḤAYLÂN and MU'WAJ.
559. Branding iron for horses and camels.
560. Wrong. See *Maqbât*.
561. Abortion.
562. Eye gland of a horse.
563. The spot where the forelock of a mare touches her head (the bulging part of the forehead).
564. The "scepter" of the Bedouin; his riding stick of tamarisk wood or reed.
565. "Knocker," a very short and small iron comb stuck into the heel of sandal and used by some Bedouins as a kind of a spur.
566. "Feedbag" of a horse.
567. An ancient, "lost" strain of Arabian horses.
568. Substrain of KUḤAYLÂN.
569. (Waving in the air) like wings. AL-WAH—shoulder blades. One of the *main strains* of Arabian horses.
570. Substrain of KUḤAYLÂN.
571. "Hard steel." Substrain of KUḤAYLÂN.
572. "Handkerchief." Substrain of KUḤAYLÂN.
573. "Nostril" of a horse. *Minkhar wâsi*, "open (dilated) nostril."
574. See *Bî' miqalfa*.
575. Power of transmitting hereditary qualities of the blood.
576. "Tribute," paid to Bedouins for permission to pass with a caravan or a migrating clan through their pastures and to pasture camels and horses there.
577. Dried, evaporated buttermilk or camels' milk; gets hard as a rock and keeps indefinitely. When dissolved in water, serves as a thirst-quenching beverage also for horses.
578. "Silky-haired" horse, named after the Angora goat.
579. Near (left) hind foot white.
580. Zither-like Bedouin instrument. Substrain of KUḤAYLÂN.
581. Saddle for a horse. *Mirshihâl al-khâyl*, "Saddle the horses."
582. Posteriors of a horse.
583. "Enriching"(-horse); "abundantly supplied."
584. Riding crop. See *Mihjân*.
585. The most highly esteemed among the valued horses. (In some books wrongly: *el-emsemmah*.)
586. Saddle-sore back.
587. See *Bî' mithâni*.
588. "In foal," "heavy with child," pregnant.
589. Large skin, the whole hide of a camel, made into a bag to carry water for horses.
590. "Coral."
591. Substrain of KUḤAYLÂN.
592. Hollow over the eye. See *Waqba*.
593. Upon whom hope was placed—the eighth horse in a race.
594. Capricious, headstrong horse.
595. "Lean one." Substrain of KUḤAYLÂN.
596. Substrain of ṢAQLÂWÎ.
597. The blood-covered mare on a chase (with falcons and gazelle hounds).
598. The eight-year-old horse.
599. Songstress; a mare who neighs with a silvery voice.
600. The "enriching ones"; the mares, which are the means to gain booty and wealth.
601. "Pasterns" of a horse. See *Qâyn*.
602. "Shackled," the mare with two near feet and one off (right) white. See *Hajile*.
603. A dark bay, the color of roasted coffee. See *Hamrâ talsâ*.
604. "Surrounding (protecting)" the host. Substrain of KUḤAYLÂN.
605. Substrain of KUḤAYLÂN.
606. (*Halib muhayyine*), camels' milk, which is drawn from the udder every two or three

- days, acts as a strong laxative on a sick mare.
607. The "only (incomparable) one." Substrain of KUḤAYLÂN.
608. The "filly." A mare is called a *muhre* the first ten years of her life. See also *Qārah*.
609. The mare in the last month of her pregnancy.
610. "Provider." Substrain of KUḤAYLÂN.
611. "He who raises his countenance above all others" (the first in a race). Substrain of DAHMÂN.
612. Vaccinator, veterinary.
613. "Decorated with tinkling silver." One of the *main strains* of Arabian horses, and a substrain of KUḤAYLÂN.
614. "Four white stockings"—as if the horse had passed through the ford of a wadi (river) bed.
615. Drinking wind with the nostrils (while in full run).
616. Protected (hidden) under cover (speaking of a mare, protected by surrounding camel riders).
617. The man who rents horses. See *Ḥabala*.
618. Yearly festival to celebrate the birthday of a tribal or village saint; mostly connected with a display of horsemanship.
619. "The kings (aristocrats) among horses are the dark." Substrain of DAHMÂN.
620. Substrain of 'UBAYYÂN.
621. *Ma'naq*, straight, long neck. MU'NIQI, one of the *main strains* of Arabian horses, Nejd-Bedouins write *mu'niqi* with the 'ain and qaf (not kaf or ghain). "Northern Townsmen" have nothing to do with the interpretation of this epithet. All the great chiefs and their scribes wrote it for me *mu'niqi* (and not *manak* or *managhi*) and I have never seen an Arabian pedigree in which *mu'niqi* was written without the 'ain and qaf.
622. See *Hanak*.
623. "Illuminated one." The word *Manare* (where a light is placed—a lighthouse or "Minaret"—a very showy mare).
624. "That ends it." When parents desire a boy and always girls are born, this name is given to a newborn girl in superstition and vice versa to a colt, when they desired a filly.
625. Of the Muntifiq, Bedouins; not a special strain. In Iraq any horse from southern Iraq or even Persia. The Muntifiq have settled along the Tigris near Basra.
626. Synonym: the illuminated, illustrious, glorious mare.
627. (To give up one's legal share) in a jointly owned mare.
628. Contracted hoof.
629. Broad, wide (forehead of a horse, for example). Don't mix with *murabba'*, which means grown well (developed and stout) from pasturing on fresh spring pasture.
630. "Wet nurse." The milk camel (*naga*) which nourishes the mare and her foal.
631. A gay, merry horse.
632. "Thunderer," named after the loud neighing; was one of the eight stallions of Mohammed.
633. "Genuine" (the "true"—*mustaqim*). Substrain of KUḤAYLÂN.
634. See *Zād al-musâfir*.
635. "Of the dock" (point of the hindquarter, croup), because it had followed in a race so close to the tail of the winning horse. See *ṢALÂ*.
636. "Holy script," an amulet of silver with a verse from the Koran, written on parchment and tied to the halter or mane of a horse.
637. A mare carrying her tail so high that the fulness of the hair sweeps over her back.
638. A peeled palm branch used in the *jarid* game. A lean horse in racing shape. Substrain of HADBÂN.
639. "Aged." Substrain of KUḤAYLÂN.
640. Horse hair, used by Syrian horse-dealers to cause scars on the lower legs and above the hocks of horses to fool prospective buyers that such horses came from the desert. Bedouin horses usually have such scars from having been shackled or tied.
641. A horse well balanced in character.
642. Caliph, A.D. 833-42; owned 130,000 horses. They were not pure Arabians but crossed with other Near Eastern types and produced spotted fawn colored, reddish and other off colors, according to the ancient records.
643. A mare in heat.
644. "Swaying while galloping." See *MÂYSÂN*. One of the *main strains* of Arabian horses. The *mu'waj* supposed to descend from the "lost" strain of RIME (see *Mahkur*).
645. Inflammation of the intestines (in a mare), diarrhea.
646. A strain of horses among the Shammar tribe, not considered pure among other Bedouins.

647. The famous mare of Harith abu Bujayr. *Na'ame* is also the word used for the skin of the head under the fore top of the horse.
648. "Henna." See Solomon's "Song of Songs" (1:14). See also *Hinna*.
649. A horse rolling on the ground.
650. The two sides of the head.
651. Abruptly comes to a stop.
652. Tuft of ostrich feathers (fastened below the spear blade) of the rider's lance.
653. A "reserved" mare (for purchasing reasons).
654. A mare, losing her wits in excitement (frightened).
655. To give the death thrust with a knife to a horse.
656. A horse with a beautiful coat that has a soft sheen—like a girl with a fine complexion. Substrain of KUḤAYLÂN.
657. (A horse from) Nejd, especially those from the stables of the princes of Hayil and Riyadh or the Agheyls of Buraydah and 'Anayzah. Not a strain name and not necessarily a pure horse.
658. A rider "escaping fast."
659. A horse of intelligence and pure blood. Substrain of DAḤMÂN.
660. "Courier" (mail-rider) on race camel or horse (or with the horse tied to the race camel's saddle cinch in case of emergency).
661. "Morning star." Substrain of ṢAQLÂWÎ.
662. A horse which begins to get warm (or perspiring).
663. "Snort."
664. Hair marks on the coat of a horse which look like a palm branch.
665. "Sandal," the horseshoe. See *Hudhâ*.
666. "High-born."
667. If a white marking on the near (left) forefoot is the only white spot on a horse, it is considered a very unfavorable sign by superstitious Arabs.
668. To click the tongue to urge or animate a horse.
669. Watering the horses.
670. Ears alert (erect).
671. Substrain of KUḤAYLÂN.
672. Horse-breeding.
673. "Forelock," the sacred tuft of hair on the forehead of an Arabian horse. An angel (according to Bedouin tradition) visits every night the noble horse and, placing his hand on the forelock, blesses the horse and its owner (or curses the owner if he abuses or selfishly treats his animal). See also *Qusṣe*.
674. See *Nisbe*.
675. The breeding of a mare in the morning (*Khaṣm* in the late afternoon or evening).
676. A ritual. To "wash off" the influence of an unfavorable marking on a horse. The superstitious owner kills a black goat on the withers of his horse and lets the blood run over the legs with the unfavorable white markings.
677. "Generous one"; also the name of a wild flower. Substrain of KUḤAYLÂN.
678. "Tending or subjecting many camels." Substrain of KUḤAYLÂN.
679. See *Nâṣiye*.
680. Indigo blue; also the color of a bluish-gray horse. (Colloquial in Egypt.)
681. See *Zirḡa*.
682. The trunk (of a tree), the strain of a horse see also *Nasl*. The substrain is called *rasan* or *marbat*.
683. White markings (blaze, stockings, etc.), which, according to the Ruala and other tribes, originated among the ṢAQLÂWÎ and 'UBAYYÂN. See *Shiâl*.
684. The birth of a foal.
685. Substrain of INZIHÎ.
686. The hollow of the pastern below the fetlock.
687. Favorite grass for horses and camels, growing on the high plateaus, in the mountains and the Nufud Desert.
688. "Softness" (of sleep, for example), one of the twenty-two mares of the Prophet Mohammed. Substrain of KUḤAYLÂN.
689. A curly spot of hair above the nostrils, an ordinary and bad sign (according to superstitious Arabs).
690. Crest of the mane.
691. Cough of a horse.
692. Desert thyme, good horse feed.
693. Ornamented throat; latches.
694. Heart.
695. Gallop. Synonyms: *'alaj*, *arda*, *mafaj*.
696. Substrain of TUWAYSÂN.
697. Little ears.
698. "Roman" (nose).
699. Substrain of KUḤAYLÂN.
700. The horse is feeding in the pasture.
701. The mare in her sixth year (also called *awwal qarh*), the second *thân qarh*, etc.). This shows that a mare is considered mature at six years and ready to produce.
702. Distance between hips.

703. Substrain of KUḤAYLÂN.
704. "Horns," the plaits braided into the mane of a horse.
705. Trough shaped from the mud or clay near a water hole to let the horses and camels drink.
706. Substrain of ḤAMDÂNÎ.
707. "Of small stature," used, for example, as *ḥuṣân qaṣîr*, "the small stallion."
708. A man in search of his mare, which he lost in a raid. See *İquṣṣ*.
709. The fleshly part of the croup on both sides of the dock (root) of the tail.
710. Alfalfa; horses in oases and settled districts of Arabia get soft on this feed.
711. Substrain of KUḤAYLÂN.
712. White markings on both forefeet; also the name for the iron shackles of a horse.
713. The coronet.
714. Substrain of KUḤAYLÂN.
715. The mare which can run a long distance without panting or being short-winded.
716. Long white blaze, extending to the nostrils or lip. See *Ghurra*.
717. Substrain of MU'NIQT.
718. A conical hill; the bulging forehead between the eyes of an *asîl* (noble) mare. *Qinnatayn*, "twin hills." These are two high protuberances on the forehead of a horse. See *Kubâr*.
719. "Date cluster." Substrain of KUḤAYLÂN.
720. Saddle. See *Sarj*.
721. Goatskin, of the Bedouins, used for storing water for their horses.
722. Saddle pad (cushion) of leather or cloth.
723. The heroic blacksmith of Mohammed.
724. Amulet of glass or silver (ring) to tie into the mane and tail hair of the mare,
725. "Easy to lead," the lead horse. Substrain of TUWÂYSÂN.
726. The horse only slightly touches the ground while running.
727. "Taken" (in a raid). A mare of *unknown* strain and origin, though very probably of pure breeding. Cannot be used for mating if no witnesses are found.
728. Scars on horses from wounds or fetlock shackles.
729. Famous mare of unsurpassed beauty, which Shaykh Sfuk of the Shammar owned (1840).
730. Milk bowl for the horse.
731. Substrain of KUḤAYLÂN.
732. "Taken from the enemy." Substrain of SAMḤÂN.
733. Hedgehog. See also *Shâuk* (*âbâ shâuk*, "father of thorns").
734. Once a special strain among the Muntifiq tribe. Originated among the Quraysh in Mecca.
735. Long neck.
736. Black goathair bags of huge size, in which the Bedouins have their camels carry their tent canvas during the migration. These bags are also used to carry the injured foal of a horse or camel.
737. Foretop of a horse. See also *Nâṣṭye*.
738. A part of the iron shackles of a horse.
739. The noise of the attacking (stamping) horses.
740. A horse trembling like a long lance.
741. Name for a mare or a stallion.
742. The six-year-old mare.
743. Training and handling a young horse. This is considered an art because it requires skill, imagination, and intelligence. The same word is used to describe the mathematical (scientific) education of a young man. See *Ṣani'et*.
744. Bedouin fiddle, with one horsehair.
745. "Confined," wild ostrich. One of the *main strains* of Arabian horses.
746. The spring pastures. Rabi'e Al-Faras, the grandfather of 'Anz, progenitor of the 'Anaze tribes.
747. See *Zirgâ*.
748. Willing one (in the sense of a docile horse).
749. The armed companion rider who sits behind the owner of the race camel and leads the horse.
750. "He who issues happiness," the angel at the entrance of paradise. Substrain of KUḤAYLÂN.
751. The travel companion, who is loaned as a bondsman to some riders to secure their safe conduct through a certain tribal territory.
752. Kneecap.
753. The mare with the newly born foal at her side.
754. A "single-foot" (gait), similar to the "rack," still noticeable among Spanish and South American (Peruvian) horses of Arabian blood and in India. A slow shuffle, or amble, throwing forefeet in a graceful circular motion, so that a fast-walking man could keep up with the horse and rider.
755. The responsible man who takes care of a mare which is owned by him and another Bedouin.

756. "Galloping." See *Rakizha*.
 757. Knee.
 758. Galloping with increasing speed. See *Rakazat*.
 759. Mounting a horse.
 760. A synonym for a "horse" (*ramake*, "mare").
 761. "Miscarriage" (of a mare). See also *Tarahat*.
 762. Withers of a horse.
 763. A very slender horse.
 764. Substrain of KUḤAYLÂN.
 765. Head.
 766. Substrain of KUḤAYLÂN.
 767. Pastern.
 768. Wool-woven rope of the halter; also the "substrain" or "family" of a horse (the "strain" is called *nisbe* or *naşl*).
 769. Front rim of the saddle pad.
 770. "Head (leader) who is willing to sacrifice his life to crush the enemy." Substrain of KUḤAYLÂN.
 771. The halter (hackamore) of a horse and in particular the nose chain of the halter (used instead of a bit).
 772. Silver decorations on the halter or bridle.
 773. Substrain of KUḤAYLÂN.
 774. "Quick-spirited"; "strongheart." Substrain of KUḤAYLÂN.
 775. "Water-carrier"; he who hands down to posterity in poems and songs the traditions or pedigrees of the forefathers and their horses.
 776. Rheumatic affliction of a horse.
 777. Hind leg. See *Id*, "foreleg."
 778. Broad stirrups, used by Syrians. Sharp corners serve as spurs. See also *Markab*.
 779. See *rumh*.
 780. Substrain of ŞAQLÂWÎ.
 781. "White gazelle," one of the mares of the Prophet. She stretched herself so much in gallop that she grazed her abdomen against the rocks. From then on she wore a protective "apron" of skins (made from the hides of the white *rim* gazelle).
 782. Feather-like long hair (like the long-haired, tufted *saluqi*, gazelle hound). One of the *main strains* of Arabian horses.
 783. Froth, saliva.
 784. "Of the Ruala tribe"; not a special strain and not considered pure without proof of the particular strain and substrain. Substrain of ŞAQLÂWÎ.
 785. Substrain of KUḤAYLÂN.
 786. The four-year-old horse.
 787. Horses used in war for a sacred cause. See *Habîs*.
 788. "Light-footed." Substrain of KUḤAYLÂN.
 789. "Wake up the spirit of the mare." The sunrise call of the owner of a mare to his slave to feed the mare with barley or dates. In the evening the owner calls out: "Allayqu 'ala al-faras" ("Hang [the feedbag] upon the mare").
 790. The sweet foam of fresh camel's milk which the horses smell from a long distance; they begin to neigh and whinny until they receive their share in wooden bowls.
 791. Stirrup.
 792. "Knee" of a horse.
 793. A mare in her best age (a mature mare in good condition).
 794. The eighteen-foot lance of the Bedouin rider. The *shilfa* is a spear (short lance), carried by the leader of the raiding party.
 795. The broad head of a horse viewed from the front.
 796. Side of neck of a horse. See *Ma'ârif*.
 797. A (lead) bullet to weigh the womb of a mare down to assure her conception when the stallion covers her. The bullet can be extracted later from the skin or muscle of the foal without harm.
 798. To lift the neck and head of a mare to bring her to a stop.
 799. The horse which did run.
 800. Mare after giving birth (*jaha'* when in foal and *hayil* without foal).
 801. "Excellence" (an excellent mare).
 802. To bridle the mare. See *Saffafat*.
 803. A great "swimmer" (racer). Substrain of ŞHŪWAYMÂN.
 804. "Splendid" one; one of the mares of the Prophet Mohammed.
 805. Forelock.
 806. "Foremost," the horse which won the race.
 807. "Leather-braided," the belt of gazelle skin which all Bedouins (men and women) wear around their loin and which they often use to lead their mare or tie (shackle) her feet if no hobbles are handy. They may also use for this purpose the *aqal* (head cord).
 808. Deep forehead. See *Safa*.
 809. Temple (between ear and eye).
 810. A desert plant. One of the *main strains* of Arabian horses.
 811. Breast.
 812. According to the legend, the famous stallion of Solomon and also the progenitor of

- a choice selection of five (Khamse) strains.
813. Double *jibhe* (shieldlike protrusion) on a very wide forehead. Named after the two curls of hair on the bulges (regarded by superstitious people as good omen). See *Sā'id*.
814. "Breast" (point of breast) of a horse.
815. Narrow forehead. See *Sabū'*.
816. See *Āṣfar*.
817. "Purest of the pure," used in connection with *pure strain breeding*; also used for an unblemished, absolutely faultless diamond. See *Āṣil* and Major General Tweedie's book.
818. "Throw the bridle on the mare."
819. "Meditating" (horses). See *Khiyāl*.
820. "The yellow (with age)." The old white mare, which had many foals and was famous on raids. She stands at the entrance to the chief's tent and is kept as a special mount for the tribal prince on festival occasions, but is no longer used on raids.
821. "Standing on three legs and with one drawn up."
822. "Genuine," unadulterated (said of a purebred horse). See *Āṣil*.
823. "Runner" (messenger) on horseback or race camel.
824. Middle of *jibhe* seen from front.
825. Rider, groom. In Hebrew *sūs* ("horse"); also in other North Semitic languages, e.g., Phoenician, Aramaic, and even in ancient Egyptian the same word for horse.
826. Armed guardsman in the pasture watching the mares and camels.
827. Agile (swift as running water), one of the twenty-two horses of the Prophet.
828. Haunch.
829. To "fetter" (a mare's) forelegs with the iron shackles (*ḥadīd*).
830. Point of croup. See *Muṣallā*.
831. Saladin presented to King Richard (the Lionhearted) of England (1193) Arabian horses and in exchange received Norwegian falcons.
832. The horse of good health, soundness.
833. "White pigeon," the blaze.
834. To take the blanket off the mare.
835. The horse which had been starved (but saved).
836. Gazelle hound. Substrain of MU'NIQ.
837. See SUMMUNE.
838. "Submissive," gentle broken, Substrain of 'UBAYYĀN.
839. "Benevolent." One of the *main strains* of Arabian horses.
840. An evergreen desert herb. Substrain of KU-HAYLĀN.
841. Substrain of ṢAQLĀWĪ.
842. Teaching a horse the gaits. See *Ṣanī'et* and *Āshār* (exercising a horse under the rider).
843. Hump (of a camel), the hunchback. Son of Ishmael's wild mare. See Major Upton's book.
844. Used as plural for Fāris, the cavalier (horseman).
845. Blacksmith (horse-shoer).
846. "Fine arts," practical application of one's imagination and intelligence in the training and raising of a high-born horse. The man or woman who aims to handle an Arabian stallion (colt) or mare (filly) needs not only unusual skill but a "spiritual understanding" of the "soul" of the animal (an aesthetic feeling toward the creature's beauty and intelligence). Hence the Bedouins compare the completion of the "education" of an Arabian horse to a scientific (artistic) problem well solved. See *Rabāḍet*.
847. Labia (of the sexual organ of the mare).
848. A "well-placed flank."
849. "Well-placed, large flank." *Ṣaql*, "well placed." One of the *main strains* of Arabian horses.
850. Substrain of ṢAQLĀWĪ.
851. Glanders of horses.
852. Beating the ground with hooves.
853. The horsemen hurried to go on a raid.
854. A horse walking in his sleep.
855. Saddle (of the town Arabs).
856. "Twitching the ears" (flip the wings like a *wijwij* [cricket]).
857. White scars on the back.
858. "Father of aggressiveness." Substrain of KU-HAYLĀN.
859. "Compensation" (paid to the raider for the return of a mare).
860. The advancing horse (which has outrun all others).
861. "Chase" on horseback.
862. "Sword," the long hair of the tail of a horse.
863. Wild torrent (caused by cloud burst in a thunderstorm). One of the stallions of Mohammed in his raid against the Mecca caravan (during the second year of the Hegira [A.D. '622]).
864. "Fisherman's net," the mare of the raider who brings in the captured camels.

865. Covering (breeding) of a mare. See also *‘Allāh*.
866. Substrain of *mu‘niqī*.
867. Ancient saddle pocket to carry implements for his bow and arrows.
868. Scold a horse. See *Jallab*.
869. "Passionate," "voluptuous." Substrain of *DAHMÂN*.
870. Horse whose tip of the tail is a silvery white. See *Mama‘et*.
871. The initiated, the one of knowledge, the poet. Substrain of *KUḤAYLÂN*.
872. "Barley"; the Bedouins have no oats but feed barley instead to their horses.
873. "Flank" of a horse.
874. Feminine form of *āsh‘al*, silver-gray or white mare.
875. To touch the mare with the heel.
876. A birthmark, mole. Substrain of *SHŪWĀY-MÂN*.
877. "Toward the north." The Syrian Desert and horses of the Syrian Desert. Not a special strain. (See Homer Davenport's book.)
878. Shammar horse; not a special strain and not necessarily a good horse.
879. Substrain of *KUḤAYLÂN*.
880. Spot of curly hair (swirl) below the throat latch (in the middle of the neck); superstitious people consider it a bad sign.
881. "Chestnut" color. *Shaqra dhuh*, "golden chestnut."
882. Substrain of *RĪSHÂN*.
883. "Had sufficient to drink." Substrain of *MILWAḤ*.
884. Throat.
885. The noble, exalted one. Substrain of *KUḤAYLÂN*.
886. "Partner." See *SHARRĀK*.
887. Substrain of *‘UBAYYÂN*.
888. Shying (of a horse). *Shāwwashat al-khāyl*, "stampede" of mares (in a pasture, when enemy raiders appear—or in camp for some other reason, when horses suddenly get frightened). But as they are shackled on their feet and their heads left free, no damage ever happens to the animals or the people and their property.
889. Substrain of *KUḤAYLÂN-SHAT* or *-SHIYĀH*.
890. "Thorn," the spine of a horse.
891. Substrain of *KUḤAYLÂN*.
892. See *Shāshāt*.
893. Substrain of *RABDÂN*.
894. Supreme chief of a tribe (fem. *shaykhe*; pl. *shiyūkḥ* or *mashayikh*). Substrain of *KUḤAYLÂN*.
895. Lower part of knee.
896. White markings (about sixty-four can be mentioned). See *Nishân*.
897. "A span," the width between the jowls of a horse. *Shibrāyn*, two spans, across her forehead (from extreme corners of the eyes).
898. Cover over the hindquarters of the horse, fastened to the saddle or part of the riding pad to carry the hooded falcon.
899. "Lean of flesh." Substrain of *KUḤAYLÂN*.
900. "Of northern race"; with this term of *shimālī* Bedouins mark an ordinary horse or one of unknown origin. All *mu‘niqī* (and *mu‘niqī* related strains) are considered to be of *shimālī* descent through some foreign sires who came to the Arabian Desert after the conquest of the Prophet's followers abroad (Europe, Asia, and Africa).
901. A goatskin to carry the camel milk for the mare and her foal.
902. Sharing the ownership of a mare. See *Titakhāshir*.
903. Substrain of *KUḤAYLÂN*.
904. "Teats" of the mare.
905. "Covered with tar" (froth, perspiration). Substrain of *ṢAQLĀWī*.
906. "Burning" (diminutive form). Substrain of *KUḤAYLÂN*.
907. The favorite horse of the Persian King Khosru Parviz (seventh century).
908. Substrain of *mu‘niqī*.
909. Substrain of *KUḤAYLÂN*.
910. "Drinker of the Wind," a poetic tribute paid by the Arab to his horse.
911. Substrain of *ĀBŪ ‘URQŪB*.
912. A birthmark. One of the *main strains* of Arabian horses.
913. Substrain of *‘UBAYYÂN*.
914. Tail of a horse.
915. Substrain of *mu‘niqī*.
916. Nose chain of the halter (*rashme*) of a horse.
917. "The price is fixed by the one who desires the object." If one wants to purchase a horse in the desert, this sentence may be used as an excuse to mention a definite price.
918. A certain grayish-brown color. Substrain of *ḤAMDĀNī*.
919. Leather thongs (cords) to fasten objects to the saddle.
920. "Chain" (of the iron shackles, which are used to fetter a horse's forefeet).
921. See *Surre*.
922. Both hind feet white.

923. "Steel sinews." Substrain of JILFÂN.
924. Mounted hunter with falcon and grayhound.
925. The purchasing price for a horse.
926. Speedy one.
927. Unfavorable markings on horses.
928. Marks (on a horse); considered of good or bad omen by superstitious Arabs. *Yisus siyâsihe* (one who understands to interpret markings).
929. "The little gentle" mare.
930. Derived from *ṣaūt*, "cut with a stick (a whip)." (According to tradition, the mother of ṢŪĀYṬĪ had been cut with a stick because she had not kept calm when about to foal.)
931. Substrain of MU'NIQĪ.
932. Substrain of ṢAQLĀWĪ.
933. Rosary (the Islamic rosary has thirty-three beads). Subḥe was also the name of one of the mares of the Prophet.
934. Substrain of 'UBAYYÂN.
935. "Taciturn," the last horse in a race.
936. Substrain of KUḤAYLÂN.
937. Quail. Substrain of KUḤAYLÂN.
938. See *Sāni*, "blacksmith."
939. "Image" (picture). Substrain of KUḤAYLÂN.
940. Line below (belly line) of the horse.
941. "Perspiration" (fem. ṢŪWĀYHE; see SHU-WĀYHE). Substrain of ĀBŪ 'URQŪB.
942. Substrain of KUḤAYLÂN and also ĀBŪ 'URQŪB.
943. "She disappears (like a vapor or cloud)"—an exclamation of surprise about the astonishing display of a fast (fleet) mare.
944. Substrain of MILWAḤ.
945. Artificial way to make a horse lose weight. See *Manṣūr qalāūn*.
946. Substrain of KUḤAYLÂN.
947. Hind feet too straight.
948. "Succeeding one," the fourth horse in a race.
949. "Unfettered feet." *Talūqe*, the mare set free; (allowed to be) bred to a certain stallion.
950. Smoke tree, a desert bush; the silver-gray color of a horse.
951. See *Ḥamrâ talsâ*.
952. "For breeding" purpose. See *Talīq* and *Shabbāh*.
953. Vaccination lymph for horses.
954. Substrain of 'UBAYYÂN.
955. "Date-colored" (golden-brown). Substrain of KUḤAYLÂN.
956. Lean of body (belly).
957. Miscarriage (of a mare). See also *Ramal*.
958. "Pounding the earth with his hoofs," one of the eight stallions of the Prophet.
959. The attack of the riders.
960. Substrain of KUḤAYLÂN.
961. "Path," the deep seam on the back of an Arabian horse; both sides of the furrow well muscled.
962. Small mounted company in the desert.
963. A mounted warrior, galloping back and forth in attack and encircling the enemy.
964. Of the Tartars. This word, used in Iraq, shows that the people of Mesopotamia still remember the Mongol invasions and specify a certain type of horse now as being a cross (or descendants of such crosses) with Mongolian ponies.
965. Substrain of ṢĀ'DAN.
966. The gelding.
967. Sexual organs of the stallions. See *Zibb*.
968. Lower thigh of a horse.
969. A small hole (dug with bare hands or the lance shaft) in which water collects to let the horse drink.
970. The mare in her seventh year. See *Qarah*.
971. Of a mare disappearing from view.
972. (Barley) straw cut into small bits; fed as substitute for pasturage in Syria and Egypt.
973. (Plural.) Cannonbones. Often one hears the word *wazīf* used for cannonbone, but *wazīf* is the correct term for the gaskin (the part of the leg above the hock).
974. A bolt mare with almost unmanageable spirit, overtaking in her stride and speed any other animal; allowing no other horse to be in front of her.
975. Same as *Hidhāba*.
976. Fast, long walk of a mare.
977. The horse whose ancestors are all proved to be of pure descent (the noble horse).
978. To share among each other the products of a mare. See *Shirike*.
979. Spot of curly hair (swirl) on the lower thigh of a horse; a bad sign according to superstitious Arabs.
980. See *Ṭarrād* and *Lā'b (al)-khāyl*. A man-to-man fight on horseback.
981. The "horse of spoil." Not a special strain but simply a known (not proved) horse taken on a marauding expedition. They are not bred to pure horses of their own, unless witnesses have willingly testified to the strain and substrain records of such a horse.

982. Substrain of KUḤAYLÂN.
 983. Peacock. One of the *main strains* of Arabian horses.
 984. Diminutive form of 'abd, "little slave." Substrain of 'UBAYYÂN.
 985. In other books Obeyran, Wubayran. Substrain of ṢAQLÂWÎ.
 986. "Cloak-carrying." According to the legend, she carried a shepherd's coat home on her strong tail when her rider had thrown it off from his shoulder in pursuit. One of the *main strains* of Arabian horses. Substrain of 'ABAYYÂN.
 987. Substrain of WUPÂYHÎ.
 988. The first twenty-five days after a mare has been covered. As it is not certain if she is pregnant, she is tried again. See *Yẓ'ar-rizhe*.
 989. Chestnut on the leg of a horse.
 990. "Frog," inner part of the hoof.
 991. Not a horse but the famous ass of Mohammed. See 'Urf.
 992. "Dock," the root of a horse's tail.
 993. Substrain of 'UBAYYÂN.
 994. Horses from Oman in southeastern Arabia; not a strain of Arabian horses and not necessarily a pure horse.
 995. Diminutive form of 'Umr, "life." Substrain of KUḤAYLÂN.
 996. Substrain of KUḤAYLÂN.
 997. Substrain of KUḤAYLÂN -urf, fem. MA'RAFA.
 998. Substrain of ÂBŪ 'URQŪB, also KUḤAYLÂN and RÎṢHÂN.
 999. Substrain of 'UBAYYÂN.
 1000. Substrain of KUḤAYLÂN.
 1001. "Low-of-girth." Substrain of KUḤAYLÂN, ṢAQLÂWÎ, WADNÂN.
 1002. The eight-year-old horse or camel.
 1003. Wild, feral (horse, for example). Substrain of WUPÂYHÎ.
 1004. "Pain" (sickness in general) of a horse.
 1005. Nostrils like the dens (lair) of hyenas.
 1006. One of the famous mares of Mohammed.
 1007. Ruined hoof (worn down).
 1008. Hollow over the eye. See *Mâ'am*.
 1009. "Rose," one of the horses of the Prophet.
 1010. The width of the throat latch (of a horse). See also *Hanak* and *Khad*.
 1011. Hip (pelvis of a horse).
 1012. Dilated (open). See *Minkhar*.
 1013. Tribal mark, brand on a horse.
 1014. "Low" (not high-legged). Substrain of KUḤAYLÂN.
 1015. Gaskins (lower thigh).
 1016. The "two hips."
 1017. See UBÂYRÂN (not: 'UBAYYÂN).
 1018. Oryx antelope. Substrain of 'UBAYYÂN.
 1019. "She has foaled." See also *Afradat*.
 1020. See *Hanak*.
 1021. Ordinary horses of unknown breeding on the Iraq-Iranian border.
 1022. Off (right) fore foot white.
 1023. See 'Anna.
 1024. Kangaroo, rat. Colloquial nickname for a good jumping horse.
 1025. The famous horse of Zubayr ibn al-ʿAnwam.
 1026. Wide (deep) jaws.
 1027. "Teasing" a mare (leading to a stallion to test her if she is in heat or pregnant).
 1028. Same as *Āna*.
 1029. To cancel an agreement between partners in the ownership of a mare.
 1030. Riders assembling on the field of battle.
 1031. Substrain of KUḤAYLÂN.
 1032. Sexual organ of the mare,
 1033. "Provision for the traveler," one of the legendary "five" mares of Solomon.
 1034. "Flourishing." Substrain of SHŪWÂYMÂN.
 1035. See ĤIZĪĤÎ.
 1036. Substrain of HADBÂN.
 1037. Back of a horse.
 1038. "Legal alms"—the tenth, the mare or camel in its prime.
 1039. Substrain of RABDÂN.
 1040. The outrider (scout) horse; the mare ridden on the outside of the migrating clan.
 1041. Substrain of KUḤAYLÂN.
 1042. Substrain of KUḤAYLÂN.
 1043. Oil-like. Substrain of HADBÂN.
 1044. Penis (of the stallion). See also *Tâys*.
 1045. Curls of hair on either side of the sexual organs of a stallion. A superstitious mark of distinction.
 1046. Head cold of a horse.
 1047. A white mare with a motley of black hair in her coat. If she appears bluish, she is called *zirqâ nîkîye*; if one with chestnut hair intermixed (a pink or reddish effect), she is called *zirqâ rabshâ* (in Iraq: *rumânî*, "pomegranate"-colored).
 1048. "Unsurpassed in speed." Substrain of KUḤAYLÂN.
 1049. Substrain of KUḤAYLÂN.
 1050. Cataract of the eye in a horse.

CEDAR CREST
NEW MEXICO

ECCLESIASTES 8:2-9

WILLIAM A. IRWIN

BY COMMON consent we have here a series of more or less disconnected comments, perhaps in some way gathered about the general theme of monarchs and despots.¹ There is no agreement, however, on even this modest measure of unity, for some see in verse 8 a general reflection on man's powerlessness in the might of nature. Still worse, Siegfried, followed loyally by a number of others, carves up the passage so that, for example, we are confidently told by Sedgwick that "1, 2b, 3a, and 6a are glosses by one or more annotators."² But in reality the passage is a well-organized unit treating of a single theme that is developed consistently to its conclusion in verse 9.

The initial mistake of commentators has been the easy assumption that **מִצְוָה** in verse 5 is not the command of the king. Perhaps here also Siegfried is the head and fountain of misunderstanding, for he decrees that "**שִׁבְרַי מִצְוָה** kann nicht des Königs Gebot gemeint sein, denn dagegen spricht das Folgende, es steht vielmehr hier im Gegensatz zu **שִׁבְרַי פִּי הַמֶּלֶךְ** v. 2 von dem der Gottes Gebot hält." Now it is true that, as McNeille claims, **מִצְוָה** refers more commonly to the divine command; but there remain a goodly number of clear instances of its use for human utterances. Before we agree that the former is its sense here, we

¹ Martin says: "This section treats of the praise of wisdom and its practical effects, but also of its serious limitation." Williams heads vss. 1-4, "The Wise Man in Relation to the King," and vss. 5-8, "Encouragement to the Obedient and to the Wise." J. M. P. Smith sets up vss. 1-4 in poetry and the balance in prose. Odeberg is still better; he puts vss. 1-15 together under the title, "Various Counsels Given by Koheleth Respecting the Conduct of Man." Siegfried prints vss. 1-8 as an intrusion, with the original taking up again at vs. 9. Volz (*Die Schriften des Alten Testaments*) omits vss. 5-6, makes 7-8 a separate section, and begins another with vs. 9. However, Barton has recognized the situation; he entitles vss. 1-9, "Reflections on Despotism"; but his efforts to bring vss. 7-8 under his caption are not convincing.

² Charles Gore, *A Commentary on Holy Scripture* (1928), p. 407.

must explore the implications of the other entirely normal meaning.³

But, further, commentators have agreed that **רָעָה** (vss. 3, 5) and **רָעָה** (vs. 6) have moral or religious connotation. But such is their clear meaning in this book only in 8:11; 9:3; 10:13; and 12:14 (the latter two apparently spurious); elsewhere for Koheleth the words consistently and unfailingly mean "misfortune," "unhappiness," "discomfort," or the like. And so they must mean here.⁴

Then, a final major obstacle to an understanding of the passage is the word **רוּחַ** in verse 8. Certainly it means both "wind" and "spirit," between which commentators and translators alike vacillate—and get nothing relevant to the context! Here is the source of the idea that Koheleth (or one of the alleged annotators) abandoned his initial theme of conduct toward the monarch to throw in some ill-digested and worse expressed platitudes on man's fallen estate. But then he returned later to his announced topic, as is clearly shown by the conclusion in verse 9 that summarizes about man's rule over man. Surely such a position is improbable. Any interpretation which preserves throughout the short passage the unity that it certainly has at its beginning and end will be inherently probable. And this is provided at once by the simple fact that, like its English equivalent, **רוּחַ** has a well-established meaning of "*anger*."⁵ And in this passage the word has the article instead of the suffix of the third person; it is the king's anger that is discussed.

The text is good, save for **אֵת** at the beginning of verse 2, which is to be deleted with the versions; apparently it is an inaccurate ditto-

³ Cf. Kraetzschmar in *Theologische Literaturzeitung*, XXV (1900), 530.

⁴ See Hertzberg on both these words. But **רוּחַ** he takes as "wind."

⁵ BDB, 925a, §§c, d.

graph of the preceding consonants. And so we translate:

- 2 Obey the orders of the king, and because of your sacred oath
- 3 be not rash. Go from his presence, do not delay when the matter is unpleasant, for whatever he wishes he can do,
- 4 since the king's command is supreme, and who can say to him, What are you doing?
- 5 He who obeys his commandment will meet no harm. A wise man knows the proper time and procedure—
- 6 indeed, there is a proper time and procedure for every affair, even though a man's troubles grow many against him,
- 7 no one knowing what the future will bring since there is none to show him how matters will turn out.
- 8 No man has power to restrain the [king's] anger, nor authority in the day of execution, nor discharge from war; and wrongdoing will not deliver its perpetrator.
- 9 All this I observed while applying my mind to all that is done under the sun so long as man lords it over man to his hurt.

The entire passage centers about the court, the king, his courtiers, and their intrigues. It is reminiscent of Ptah-hotep's advice of two thousand years before. In verse 2 the "sacred

oath" is the oath of obedience,⁶ which should restrain from hasty or impatient action when the monarch's projects seem unreasonable. When sent on an errand, one should go at once, however unpleasant it may be—the consequences of delay are ominous! Still, if properly submissive, one may live in reasonable safety notwithstanding royal irresponsibility. And for one's own projects, the benefits that may be hoped from the all-highest: a tactful and observant man will know when the promising moment has come and the king is in a genial mood propitious for generosity. Tact and wisdom rule even in times of misfortune such as are of common experience when dealing with the caprice of an absolute monarch. His anger has none to curb it. In case he decree the death sentence, none can annul. If bound to him as guard or mercenary, one cannot go free. Chicanery and intrigue, the very atmosphere of the oriental court, cannot outwit the despot but will bring their own doom.

And this, Koheleth says, he discovered in the course of his study of affairs where man lords it over man, entailing general misery.

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⁶ Cf. Siegfried, Odeberg, *ad loc.*

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BOOK REVIEWS

Canaanite Parallels in the Book of Psalms. By JOHN HASTINGS PATTON. Baltimore: Johns Hopkins Press, 1944. Pp. ix+68. \$1.50.

Importance of the Ugaritic literature in the clarification of some obscure Old Testament passages has been recognized since the first publication and preliminary decipherment of the texts in alphabetic cuneiform found at Ras esh-Shamrah. Now a young scholar presents a competent and pertinent study of parallels which he has found between the Ugaritic (or Canaanite) and the Psalms.

The first chapter contains a discussion of the comparative literary forms. Briefly Patton reviews the theories of Hebrew meter and rightly discards the elaborate systems which were proposed in earlier generations. He accepts the principles of parallelism and accentual rhythm as well as the correct classification of stichs and hemistichs. Here he finds the same kinds of lines in both literatures. Moreover, following Gordon and going a bit further, he points out similar repetitions of lines with slight variations in the last words or phrases as well as corresponding patterns of word order. The grammar and syntax of the two are much the same, and the undoubted use of the emphatic particle *ki* and the use of the enclitic *mem* in Canaanite now can be used to clarify some hitherto obscure biblical passages.

Chapter ii treats of thought-patterns, where there are striking parallels, such as the deity as father, eternal, king, dweller in the heavens, rider of the clouds, hurler of thunderbolts, ruler of the sea, and crusher of monsters. Chapter iii, "Word Patterns," and chapter iv, "Word Parallels," are concerned with vocabulary, both showing clear affinities between the two languages. Taking only the Psalms as biblical literature, Patton finds "46 percent of the roots appearing in the Psalms are common to both, while 54 percent of the roots appearing in Ugaritic are common to both." He cites in this connection some 130 words where the identity is unmistakable.

As a conclusion the author says, "The two languages may, for our purpose, almost be called contemporaneous, especially with the archaisms which are prevalent in the Psalms." He holds that some of the "oddities" of Ugaritic grammar and syntax are more prevalent in the prophetic and historical books of the Bible than in the Psalms because the latter "were in constant use in the liturgical worship of the Hebrew people" and hence were changed through frequent repetition. Since poetic forms were similar and we find in both literatures the occurrence of the same words and thought-patterns, there is evidence of "a direct influence of the Canaanite of Ugarit upon the composition of the Psalms."

The Appendix contains a bibliography of seven pages and an index of all the passages cited from both the Psalms and the Ugaritic.

The book is lithoprinted from a typewritten manuscript, which was prepared with admirable neatness. There are remarkably few typographical errors, and these will confuse no intelligent reader (they are mostly slips in the diacritical marks of transliterations and the misplacing of dots in the Hebrew—errors which will be excused by anyone who has prepared a manuscript for lithoprinting).

A question may be raised about a statement on page 19 regarding the divine dwelling places: "One residence not found in Ugaritic is found in Psalm 29:10a, 'YHWH upon the flood doth dwell.'". Sea and flood often are synonymous in the Bible (e.g., Ps. 24:2), and in Ugaritic we find the goddess Athirat of the Sea (p. 44).

Patton at present is a chaplain in the Army Air Corps. It is to be hoped that before too long he will be able to expand his studies in the field where his initial publication has been a definite contribution to Semitic scholarship.

OVID R. SELLERS

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Documents Tigrigna (Éthiopien septentrionale): grammaire et textes. By WOLF LESLAU. Paris: Librairie C. Klincksieck, 1941. Pp. ix+388.

Abyssinian studies have long been the neglected stepchild in the Semitic family, and but for the devotion of a very small band of enthusiastic workers we should know very little more about them than was known in the pioneer days of Dillmann. The work of this devoted band, however, has been so productive that we already have a good deal of the preliminary work on the dialects in hand and can gain at least a picture of the development of the group as a whole.

Perhaps the most productive center of Abyssinian studies in recent years has been that at Paris, where Marcel Cohen and Sylvain Grébaut have for many years devoted their main attention to this group, and from which there seemed promise at one time of the much needed new edition of the *Lexicon Æthiopicum*. Dr. Wolf Leslau, who is now in this country, is a pupil of the Paris School, and has already published a half-dozen studies of the first importance on the Abyssinian dialects as well as an article in the *Journal of the American Oriental Society* attempting an outline of this branch of the Semitic group in the light of the new knowledge.

Since there is no common Tigrigna literary language but only a number of closely related spoken dialects, the only sound method is to describe exhaustively these individual dialects. That is what Dr. Leslau has undertaken here for the dialect of Akkele Gouzay, which he recorded from the lips of a native informant in Paris, though unfortunately he gives no precise geographical indications as to the area over which this particular dialect is spoken. In general, Tigrigna (often spelled Tigräi, which causes confusion with the related Tigré) is spoken in northern Ethiopia to the north of the area of Amharic speech, and in southern Eritrea to the south of the area of Tigré speech. Its name seems to be derived from Tigré, and, like Tigré, the Tigrigna dialects represent local developments of the old Ge'ez speech. Tigré, being spoken by so many Moslem tribes, has been influenced by Arabic,

while Tigrigna among Christian tribes has been to some extent influenced by the ecclesiastical Ethiopic and also by Amharic, its very name Tigrigna being probably an Amharic form. Along with Ethiopic, Tigré and Tigrigna represent a northern group, very definitely marked off from Amharic and the lesser dialects, which form a southern group.

Tigrigna texts are normally written in the Ethiopic script, but, as there is no literature anterior to the period of Italian interest in Abyssinia, Dr. Leslau has preferred to take down his material in a Latinized transcription, which looks a little awkward at first, but to which one gets accustomed after a little reading and which has the advantage of making it possible to indicate many details of pronunciation which are not immediately perceptible in the native script.

Documents Tigrigna is in two parts. The first is a grammar, giving a minute and exceedingly clear description of the phonetics and morphology of the dialect, with abundant examples to illustrate the syntactic construction of the various elements as they are successively described, and followed by fifteen folding plates of the usual paradigms. The second part is a collection of texts with a literal translation beneath each word and a running free translation at the foot of each page. The texts deal with the common life of the people—birth, marriage, death, popular beliefs and superstitions, local tales, explanations of local customs and fashions as to food and dress and social intercourse, local proverbs, and even accounts of the popular games played.

A technical review of such a book could only be undertaken by someone who had worked extensively in the Abyssinian dialects, and the present reviewer must confess that the only Tigrigna he had previously read was that of the New Testament published by Karl Winqvist for the Swedish Mission in 1909. Anyone acquainted with Ethiopic, however, can appreciate how careful and painstaking the compilation of this material has been and what a useful addition it is to the scientific literature of this branch of Semitic studies.

ARTHUR JEFFERY

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Modern Persian Reader. By A. J. ARBERRY.
Cambridge: At the University Press; New
York: Macmillan Co., 1944. Pp. ix+84+74.
\$1.75.

War conditions have made contemporary Persian writing rather inaccessible to the Western reader. The selections, both prose and poetry, united by Dr. Arberry in this volume permit some stocktaking. A collection of proverbs opens the booklet, the bulk of which is made up of extracts from official documents and articles on literary subjects. The last sixteen pages are devoted to verse. A concise vocabulary and brief but sufficient notes contribute toward making the *Reader* a good basis for classroom work.

The student is presented with the living language of today, for practically all the texts were written during the past decade. For those familiar with the earlier phases of literary Persian the changes manifest in diction and style are of great significance. The influence of European, mostly French, forms of expression and the demands of journalism can be felt on almost every page. The report on the abdication of Riḍā Sāh will be found very informative, and the discussion of art and literature—there is an essay on the Great Mosque of Iṣfahān and studies on Firdawsī, ʿUmar Ḥayyām, and Ḥāfiẓ—reveals the profound attachment of the modern Iranian toward his cultural past. It is perhaps to be regretted that no specimen of the modern novel was included. However debatable the accomplishment of the contemporary novel, it appears to be an increasingly important part of Persian literary production.

It should be understood as an expression of our gratitude to Dr. Arberry for this well-prepared volume when we express the hope that a companion "Reader of Modern Arabic" will follow in the not-too-distant future.

G. E. VON GRUNEBaum
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Oraham's Dictionary of the Stabilized and Enriched Assyrian Language and English.
By ALEXANDER JOSEPH ORAHAM. Chicago:
Consolidated Press [Assyrian Press of
America], 1943. Pp. 576.

Many will be misled by the title of this work, which is not a dictionary of classical Akkadian but one of what is more usually called by scholars "Nestorian Syriac." It is the first inner "Assyrian" attempt at forming a comprehensive dictionary covering all phases of the language from ancient, through medieval, down to modern times. Some twenty-one thousand words are considered, including loan-words from Persian, Kurdish, Turkish, and Arabic which have entered into the various dialects that were investigated and even slang expressions now in common use among the Assyrians. In this sense the "Assyrian" vocabulary is "enriched." The word "stabilized" in the title refers to the contention by the author that his language no longer changes but is essentially that of the Aramaic spoken in apostolic times.

Dr. Oraham has been diligent in his research in preparation for the dictionary, not only using books but also gleaning in person, searching out words in use among the various tribes, the isolated local communities, of the "Assyrian" nation. This labor indeed enriches his work.

Great care and attention have been paid to details in the physical makeup of the book, resulting in a well-printed, neat, and durable volume. Dr. Oraham himself set the type for the English material and his wife, Almas Oraham, patiently set up the Syriac portion. Their work is an act of devotion to the splendid "Assyrian nation" so rudely expatriated after World War I but, like the exiled Hebrews of old, becoming ever more intensely patriotic as they recall their glorious past.

The dictionary will be heartily welcomed by scholars, not only as a supplement to the existing lexicons of classical Syriac, but one that will be in popular demand because Syriac dictionaries of any kind are almost impossible to obtain. Scholars will, of course, note some indications that Dr. Oraham is not familiar with the prevailing customs of organizing a Semitic dictionary. His words are distributed alphabetically, as in an English dictionary, rather than filed under Semitic roots. This system does, indeed, have some advantages, especially when there are numerous non-Semitic loan-words. Furthermore, each word is transcribed

phonetically, in English letters, as well as written in Syriac. Such transcriptions are of value in recording modern pronunciation, but the system of transcription is not that commonly used by Semitic scholars. It is a simple system for which a simple key is supplied.

In a work of such dimensions, despite patient and devoted care, some errors always occur, but they are, indeed, relatively few. The dictionary is certain to find a place on the shelves of scholars, where it will be much used.

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The Ladder of Progress in Palestine: A Story of Archaeological Adventure. By CHESTER CHARLTON McCOWN. New York and London: Harper & Bros., 1943. Pp. xvi+387. \$3.50.

Here is a book whose contents correspond exactly with what the reader might reasonably expect from its title; it is a popular thesaurus of archeological information, eloquently expressed. The present reviewer is proud of his former student. As the oriental proverb runs, "The glory of the teacher is the success of his pupil." In the Preface he defines his purpose, namely, "to describe the methods and results of typical and important excavations so as to give an intelligent but nontechnical reader some appreciation of how the archaeologist works and what he discovers," special emphasis being confessedly placed on methods rather than results (p. 136). Very appropriately he dedicates his volume "To William Foxwell Albright, First Companion and Constant Mentor in Matters Archaeological."

Chapter i, on "The Magic of Method," tells us that purpose determines method. For example, the earliest excavators "were mere treasure hunters and their methods were those of the looter"; whereas the modern excavator is scientific, his dominant interest being social evolution. In chapters ii-iv he describes how the discovery of the "Galilee Man" and numerous other skeletons, unearthed in caves and wadies near Mount Carmel, tell the story of social evolution from "seventy-five thou-

sand years before history began." "There were no giants in those days," yet, "their brains were as large as ours" (p. 46). The Ghassulians "were still savages who knew nothing of the cultural blessings and enobling glories of war!" (p. 57). Nevertheless, "the paintings of Tell el-Ghassul and the house ossuaries of Khudeirah point to a very considerable progress in the manual and the mental activities of ancient man" (p. 66). No written documents, he says, older than about 1600 B.C. have as yet been found in Palestine. "By 10,000 or 8,000 years ago, however, Palestine was inhabited by a fully developed *Homo sapiens* of the Caucasian, or white race" (pp. 47, 48).

In chapters vi and vii the author tells of the excavations of Jericho, "Palestine's oldest city," and of Tell Beit Mirsim, "the ancient Debir or Kiriath-Sepher." Jericho covers the long ages from the Mesolithic period down to the invasion of Palestine by the Israelites (ca. 1400 B.C.) almost without a break; Tell Beit Mirsim takes up the tale about 2200 B.C. and carries it down to the end of the kingdoms of Israel and Judah. Jericho fell prior to 1385 B.C., its fall being presumably due to an earthquake (pp. 81, 82). Few inscriptions of any kind were found at Tell Beit Mirsim ("as yet not a single ostrakon"). The mention of "Israel" in the Merenptah stela (1231 B.C.), "far from indicating the date of the Exodus" (as was formerly supposed by archeologists), "proves that the Hebrews had long been settled in Palestine" (p. 80).

In the "Quest for an Alphabet" (chap. viii), Dr. McCown sees evolution again at work. Whether the Greek alphabet was derived directly from the Phoenician or not is still a debatable question. The various alphabetic scripts discovered in Palestine, in Sinai, and at Ras Shamra have greatly helped. Sir Flinders Petrie's excavations at Gerar, and elsewhere on the Egyptian frontier, have proved comparatively unimportant; his identification of Tell el-Far'ah with Beth-Pelet, which he connects "by a philological miracle" with the Pelethites, is pronounced by our author an example of "etymological juggling, exhibiting more ingenuity than philological method" (p. 128).

In chapters x-xiv the excavations of Tell ed-Duweir, now accepted as the ancient Lachish, is pronounced the most fruitful in Palestine, furnishing two hundred scarabs of the late Hyksos period, besides eighteen inscribed potsherds, or ostraca, and early alphabetic texts, which prove that the Canaanites were literate before the Hebrew invasion. Bethshan and Megiddo in particular have been especially rewarding, though they "are still far from being fully excavated" (p. 151). Both of these mounds have revealed debris over 70 feet deep. It has now been demonstrated that the Jordan Valley in the Bronze Age was rich in cities. The earlier diggings at Megiddo, however, by Schumacher (1903-5), "really introduced confusion and darkness instead of order and light into Palestinian Archaeology and History, just as the early excavations at Jericho had done" (p. 172).

At this point, our author pauses cautiously to inquire, "Will archaeologists a generation hence pronounce the same blessing on the excavators who have recently been so ruthlessly ravishing the mounds of Palestine and blithely reconstructing its history out of their imaginations?" (pp. 172, 173). In the more recently published *Atlas to the Bible*, by Wright and Filson (1945), Dr. McCown's "Mentor" asserts quite naively that "most of what has been written on the subject of Palestinian topography since the seventeenth century is now virtually worthless. . . . It is only in our generation that the progress of research has made real synthesis possible; all standard books appearing earlier are in imperative need of revision, often of complete rewriting." Such language is ill-becoming an archeologist who changes his views and reverses his conclusions as often as does Dr. Albright! The same false confidence is placed by many in the quality and shape of pottery. Uninscribed pottery is by no means the infallible criterion of age it is sometimes claimed to be. Our author is cautious. Tell en-Nasbeh, he allows, is not fully identified by archeology as the demonstrated site of Mizpah; archeology "only renders it plausible" (p. 214). "One of the most serious blunders" of archeology, since the first World

War, was made, he says, with regard to Ai (pp. 215-17). The date of a tomb at Jericho has been changed by more than one hundred years since its original discovery in 1931 (p. 78). Shechem is regarded by our author as "the most puzzling and disappointing of all excavations in Palestine" (p. 219); but to us not more disappointing than the reported "finds" of the so-called "Conway High Place" at Petra! Edward Robinson's acute judgment in 1838 as to the north wall of Jerusalem, McCown allows, has been completely vindicated (p. 247). Also Dalman's conclusions concerning the probable location of Calvary he recognizes as archeologically possible (pp. 249, 250).

In his concluding chapter on "What To Believe" he not only warns his readers against forgeries in coins, etc., but exhorts them "to keep up with new information which cancels old" (p. 344). Frankly conceding that the archeological conclusions of the present hour are not "final truth from heaven" (p. 346), "the real contribution of Archaeology," he assures us, "is the vivid picture it enables the student to draw of the social life of the past" (p. 348).

In general, not only is McCown's volume a most interesting and readable book but open-minded Bible students will gain much instruction from it. It is to be regretted that his citations of Scripture are so few; only twenty-seven in his Index, of which but two are from the New Testament. His Bibliography, though copious, is nevertheless incomplete; he never mentions Kenyon, Meek, Caiger, Cook, Steindorf and Seele, Montgomery, or Price and refers but once each to Woolley, Peet, and Maston. Albright and Wright are his two principal authorities. The volume is inadequately documented, and though the illustrations are well chosen, they are so grouped and entered by the publishers as to render them of minimum value. The endsheet maps, however, are especially helpful. On the whole, the volume is worthy of great praise, its chief fault being the inadequate proofs of some of its conclusions.

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THE RESPONSE TO NATURE IN ARABIC POETRY

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I

THROUGHOUT this study the terms "feeling for nature," "response to nature," and "*Naturgefühl*" shall be limited to such attitudes toward inanimate nature as are not primarily caused or conditioned by the practical needs of human life. While obviously many an individual approach or reaction to nature may have remained inarticulate, the general directives and restrictions imposed by convention on the range of his self-expression are not likely to have overly obscured the poet's feelings, since these frequently stand revealed through such slight indications as, for example, the choice of epitheton or metaphor, in which the poet enjoyed considerably more freedom than in the selection of subject matter.

If now we compare the part accorded to feeling for nature in Arabic poetry down to about A.D. 1000—and, therewith, indirectly the part played by an aesthetical or sentimental response to nature in the Arab's spiritual economy—with the part accorded it in Western poetry since the Renaissance, it becomes evident that, on the whole, nature means considerably less to the Arab than to the occidental artist, both as source and as object of his inspiration.¹ The detailed analysis of the

Arab *Naturgefühl* as attempted on the following pages should be read in the light of the fact that the poesy of nature does not, in the realm of Arab literature, hold the importance it attained in the literatures of the west.

II

Before about A.D. 600 no personal relation to nature can be traced in Arabic poetry. The numerous passages referring to or describing various elements of the Arabic scenery or striking natural phenomena are not due to the emotional appeal of the objects depicted. Their insertion in the standard *qaṣīda* is due to one of three motives: (a) as underlining personal qualities; (b) as stereotyped backgrounds; and (c) as objective interest.

a) The introduction of the particular scenery or phenomenon serves to underline the excellent qualities either of the poet himself or of the man to whom his poem is directed, or both. The early poet

scriptive of nature and these utterly devoid of any sentiment (2d ed.; Beirut, n.d.), p. 91 (a hot landscape), and p. 124 (a storm at sea); cf. the translation by W. J. Prendergast (London and Madras, 1915), pp. 91 and 98. Ḥariri's *Assemblies* are lacking any response to nature whatever. This situation is all the more remarkable as all *maqāmāt* teem with place names and constantly tell of travels to every part of the Moslem world, thus presenting numerous occasions for at least a few suggestive characterizations. The only description of a town, viz., the beautiful praise of the city of Basra, in Ḥariri's fiftieth *maqāma*, does not, of course, yield any indication of the author's attitude to nature.

¹ It deserves notice that Arabic artistic prose, too, does not, as a rule, take any inspiration from nature. Thus, e.g., in all of Badi' az-Zamān Ḥamaḡānī's *maqāmāt* there are no more than two passages de-

is a master of the art of displaying his personality while maintaining the appearance of objective reporting.²

Just as the excellence of his mount and his participation in sportive chase or elegant banqueting are meant to emphasize his social status, and the privileged position of his beautiful beloved to stress his many accomplishments, the fearful desert which he traverses alone and the forsaken water hole to which none but the wild beasts repair discreetly underline his valor—and perhaps also the distinction of the personage for whose sake the perilous journey was undertaken.³ The greater the dangers braved, the more stringent becomes the obligation of the eulogized patron to reward the boldness of the poet.

² Cf. the author's *Die Wirklichkeitweite der früh-arabischen Dichtung* (Vienna, 1937), pp. 148–49.

³ This note as well as the following do not propose to list all the references available but only a selection of characteristic passages.

The poet's desert journey or the desert or steppe landscape are described, e.g., by 'Amr b. Qamī'a, ed. Sir C. J. Lyall (Cambridge, 1919), 15.14, 15; Imru'ulqais, ed. W. Ahlwardt, 4.18, 19; Aus b. Hajar, ed. R. Geyer, *SBWA* (Phil.-hist. Kl.), Vol. CXXVI, Abh. 13 (Vienna, 1892), 23.55; *Mufaḍḍaliyyāt*, ed. Sir C. J. Lyall (Oxford, 1918–21), 34.14, 15, 40.23, 24, 97.9, 10; A'sā, ed. R. Geyer (London, 1928), 1.21–24, 6.30, 31. The danger of the journey is enhanced by the merciless noon-day heat and the deceptive mirage. Cf. the references in R. Geyer, *Mā bukā'u*, *SBWA* (Phil.-hist. Kl.), Vol. CXLIX, Abh. 6 (Vienna, 1905) (hereafter cited as "Mb"), pp. 106–8. Practically all the subjects treated in classical poetry continue to occupy the poets of the subsequent periods. Cf. here at-Tirimmāh, ed. F. Krenkow (London, 1927), 2.20–23, 34.5–7; al-Qutāmī, ed. J. Barth (Leiden, 1902), 1.11, 3.24, 13.44–46. In the early Abbasside period the presentation frequently suffers from a certain slickness—it becomes clear that the poet no longer speaks from experience. Cf. Muslim b. al-Walīd, ed. M. J. de Goeje (Leiden, 1875), p. 57.31–33, pp. 62–63 (Poem 7.22–27); pp. 124–25 (Poem 20.17–18); p. 202 (Poem 45.24–28, a passage distinguished by its wealth of detail); Abū Nuwās, ed. W. Ahlwardt (Greifswald, 1861), 19.2, 62.5, 6. The faraway water hole with its brackish floods, strewn with pigeon feathers, is shown by 'Abid b. al-Abras, ed. Sir C. J. Lyall (Leiden and London, 1913), 1.25–27; Aus, 34.1; Tufail al-Ḡanawī, ed. F. Krenkow (London, 1927), 8.14; A'sā 1.9 (cf. also Mb, pp. 45–46, and R. Geyer, *Waddī*, *Hurairata*, *SBWA* [Phil.-hist. Kl.], Vol. CXCI, Abh. 3 [Vienna, 1919] [hereafter cited as "W"], p. 225); *Mufaḍḍaliyyāt*, 26.45, 46, 39.16, 112.19–22. The dread place becomes much more friendly in 'Umar b. al-Rabi'a's graceful description (ed. P. Schwarz [Leipzig, 1901–9]), 1.63, 64.

In the same manner the poet creates the appropriate background for his hero's liberality when he describes nature during a season of drought or the dread chill of a wintry night.⁴ There is no lyrical purpose in these somewhat stereotyped pictures of an unkind and threatening nature—they are nothing but an effective means of characterizing the hospitality and circumspection with which the praised leader coped with the plight of his people.

b) Nature elements are introduced as the stereotyped background of or, at any rate, in stereotyped connection with an emotional situation. The scenery, while imbued with emotional associations, is strangely devoid of personal observations or interpretative imagery of the poet's own inspiration.

The most significant instances of such an intimate co-ordination of a natural setting with a definite category of emotion are these:

The deserted homestead, its traces almost effaced by wind and rain, recalls past love and prompts the most frequent type of the *nasīb*, the melancholy love prelude of the standard *qaṣīda*.⁵

At other times, however, it is a rain-storm, or remote flashes of lightning, that keeps the poet awake and causes him to reminisce of lost passion and of lost hope.⁶

⁴ 'Amr b. Qamī'a 2.11–14, and Umayya b. abī 's-Ḥalt, ed. F. Schulthess (Leipzig, 1911), 1.5, 6, present drought; Aus, 20.7, 8; Abū 'l-'Uryān at-Tā'i (in *Diwān of Ḥatīm Tayy*, ed. F. Schulthess [Leipzig, 1897], 10.10–14); Labid, ed. A. Huber and C. Brockelmann (Leiden, 1891), 23.2; *Mufaḍḍaliyyāt*, 22.27, 28; and in the Umayyad period Kuḡayyir 'Azza, ed. H. Pérès (Algiers, 1928–30), 123.8, 9, cold as background of the patron's bounty. N. Rhodokanakis, *Al-Ḥansā' und ihre Trauerlieder*, *SBWA* (Phil.-hist. Kl.), Vol. CXLVII, Abh. 4 (Vienna, 1904), p. 19, demonstrates in some detail that these phenomena are never yet introduced for the purpose of *Stimmungsmalerei*.

⁵ The typology of the *nasīb* has been studied by the writer, *Orientalia*, VIII (new ser., 1939), 333–36. The "nature elements" employed in the *nasīb* have been listed by I. Lichtenstadter, *Islamica*, V (1932), 28–33.

⁶ *Wh*, pp. 105–6, discusses the relation of the storm motive with the *nasīb*, listing many illustrations. To these may be added: Tufail, 7.13–16; 'Umar

Sorrow keeps him awake—will the night never end? The stars do not seem to move, their shepherd appears to have lost control over them. And all the while the suffering poet pines away in despair, impatiently longing for the light of the morn. This motive can be said to have achieved the most nearly personalized treatment and has been presented in a few passages of remarkable beauty, both in heathen and in Muslim times.⁷

b. abī Rabi'a, 312.1-3; Jamil, ed. F. Gabrieli, *RSO*, XVII (1937-38), 40-71.133-72, 10.1-3; Nu'mān b. Bašīr, ed. F. Krenkow (Dihli, 1337), 3.1-7; Kuṭayyir, 30.1-3. The switch from the grandiose to the idyllic so characteristic for the development of the approach to nature between A.D. 700 and 900 is well illustrated by passages like Kuṭayyir, 55.1-6, 59.1-7; Kulṭūm al-Attābī (d. 823) in al-Askarī, *Diwān al-ma'ānī* (Cairo, 1352), II, 9.8-18; Ibn ar-Rūmī, ed. K. Kilānī (Cairo, 1342/1924), p. 306 (No. 297); Ibn al-Mu'tazz, (Cairo, 1891), I, 1.1-6; and the charming description by as-Sarī ar-Raffā', *Diwān* (Cairo, 1355/1936), 211.19-212.3.

⁷ The night brings sorrow: Imru'ulqais, 10.4, 5; Qais b. al-Haṭīm, ed. T. Kowalski (Leipzig, 1914), 16.3; Ibn ad-Dumainā (Cairo, 1337/1918), p. 17.8. The painful length of the night was probably never rendered more strikingly than by Imru'ulqais, 48.42-46. In addition to the parallels collected by S. Gandz, *SBWA* (Phil.-hist. Kl.), Vol. CLXX (Vienna, 1913), pp. 69-75, the following passages deserve mention: 'Adī b. Zaid in L. Cheikho, *Šu'arā' an-naṣrāniyya* (Beirut, 1920), 452.16-453.4; 'Umar b. abī Rabi'a, 160.1-4, 187.1, 2; Ṭirimmāh, 1.1-4; Muslim, p. 59.3 (the final turn of phrase is repeated, p. 180.3); Abū Nuwās (Cairo, 1898), 399.8-10; Ibn al-Mu'tazz, I, 93.23-94.1, 95.10; II, 127.22, 23. Ja'far al-Mausili (d. 935), quoted by Yāqūt, *Iršād al-arīb*, ed. D. S. Margoliouth (2d ed.; London, 1923-31), II, 421-22, in his verses on the long night reminds of Imru'ulqais but treats the subject with greater elaboration. Brief descriptions: Umayya, 18.2 and 'Umar, I, 16.2. Beautiful passages dating from the ninth century: Abū Tamām (Cairo, 1347/1928; only Part I published), 385.3, 4, and al-Buḥturī (Cairo, 1329/1911), I, 20.6-9; cf. also Buḥturī, I, 202.13 (early dawn). Ibn al-Mu'tazz, I, 25.12-16, is remarkable for the beautiful similes of the asterisms. Cf. also *ibid.*, I, 50.5-21, where a complaint against Bagdad is interwoven in the description of the night. Numerous significant verses have been brought together by the two Ḥālidī brothers to illustrate a few lines on a long-drawn-out night by Baššār b. Burd in their selection of Baššār's verse (Aligarh, 1353/1934), pp. 12.5-14.12. Al-Marzubānī (d. 993), *Kitāb al-muwaššah* (Cairo, 1343), pp. 31-34, also discusses the "long-night" motive.

The motive of the "pasturing of the stars" is employed: Nābigha, ed. W. Ahlwardt, 1.2; al-Ḥansā', ed. L. Cheikho (Beirut, 1895), R VIII 3; Ibn ad-Dumainā, p. 11.4; 'Umar, 264.3; Ibn al-Mu'tazz, I, 25.13. Al-Waṣṣā', *Kitāb al-muwaššah*, ed. R. E. Brünnow (Leiden, 1886), pp. 95¹⁶ and 173¹⁴, quotes two anony-

Mountains help to illustrate the futility of man's desire to escape fate. Nothing and nobody can evade its cruel grip. When even the mountain goat climbing inaccessible peaks will not be spared by death, for what refuge may man hope?⁸

c) Varied scenes of nature are described in a more or less conventionalized arrangement within the *qaṣīda*⁹ on account of the objective interest they will present to the poet and his audience. They are selected and depicted with no regard to the feeling they are likely to evoke, or actually did evoke, in the heart of the poet. No turn of phrase, no epithet, testify to a personalized or emotionalized perception of the outward world. The poet is wholly dedicated to the task of adequately describing his theme down to its most intimate and, at the same time, most typical peculiarities. There is no doubt that here the Arabs contributed a number of masterpieces to descriptive art.

Outstanding as subjects of such descriptions are rains,¹⁰ thunderstorms (such

mous verses where "I pastured the stars of the night" no longer means anything beyond "I could not go to sleep." For the development of the *ma'nā* cf. al-Jurjānī, *Asrār al-balāḡa* (Cairo, 1320), p. 238. I. Goldziher, *Jewish Quarterly Review*, XIV (1901-2), 734-36, discusses the motive and its influence on Medieval Hebrew poetry. The concept of the moon as the "shepherd of the nocturnal gods," Synesios (d. ca. A.D. 415), *Hymns*, IX, 47 (text revised by U. von Wilamowitz, *SBBA*, 1907, p. 289 [=MPG, LXVI (Paris, 1859), 1615, l. 38]) does not seem to be of Greek growth. (Cf. also *Hymns*, VI, 17 [col. 1609], where Jesus is said to lead "to their pasturage the flock of stars.")

⁸ Cf. 'Amr b. Qamī'a, 6.11; Aus, 40.1, 2; Labid, 42.7, 8; Umayya, 47.2. W. Caskel, *Das Schicksal in der altarabischen Poesie* (Leipzig, 1926), discusses (pp. 43-52) the prevailing sentiment of both *Schicksalspoesie* and *nasīb*.

⁹ It should be borne in mind, however, that the development of Arabic poetry in Moslem times tends toward ultimate independence of the individual scenes which are more and more frequently treated per se and no longer imbedded in the customary *qaṣīda* context.

¹⁰ 'Amr b. Qamī'a, 10.9-12; Imru'ulqais, 2.1-3, 18.1-7; Labid, *Mu'allaga*, ed. C. J. Lyall (Calcutta, 1894), vss. 36-52 (trans. Lyall, *JRAS*, 1912, pp. 140-41); Ṭirimmāh, 5.52-59; Kuṭayyir, 3.15, 16. Buḥturī, II, 126.3, 4, is interesting for the decline of the motive which is treated in a sketchy and pale manner.

as are not introduced for the definite psychological purpose referred to under b),¹¹ date palms,¹² a road,¹³ a winter landscape,¹⁴ and from the end of this period the sea as the background of diving for pearls.¹⁵ Mountains or hills are usually just mentioned,¹⁶ an exception being provided by some detailed descriptions of the collection of wild-bee honey¹⁷ and of *nab*^c wood for the manufacturing of bows.¹⁸

Whatever the subject, it is presented for its inherent interest, never for any emotion it may have touched off in the observer or listener.

On the whole, when portraying his environment, the classical poet emphasizes its harsh, rough, and fearful aspects. His descriptive gifts are quicker to respond

to the appeal of the overwhelming, be it desert or storm, than to the charm of the idyllic.¹⁹ Whatever his subject, he will reproduce it as it is, or perhaps rather as tradition has taught him to see it, refraining carefully from personalized comment or from putting his feelings unduly to the fore. If we disregard the perfection of form and language, the beauty of his presentation derives entirely from the fidelity of his observation, not from his reaction to the impressions that actually inspired his song. It is never man whom he places onto the stage set by nature. If action is to be shown, it centers on animals.²⁰

His most potent tool and at the same time his highest accomplishment is the simile, in the use of which the early poet mostly asserts his originality and through which he achieves an astounding vivacity and diversity.²¹ The simile provides an attractive transition from one subject to another. Frequently, however, the poet falls a prey to his own virtuosity and wanders on from theme to theme wherever the associations of his comparisons will lead him.²²

The poet's organ of perception is the eye.²³ Descriptions, or similes, based on acoustical experience are relatively insignificant in number.²⁴ Scent, while fre-

¹⁹ Instances of idyllic passages will be quoted below to illustrate IV, 1, and V, 1.

²⁰ Cf. *Wirklichkeitweite*, p. 166.

²¹ The instances are legion. A considerable number of the more striking comparisons have been quoted in my *Wirklichkeitweite*, *passim*. Al-ʿAskari (d. 1005), *Diwān al-maʿānī*, II, 3-4, considers Imruʿulqais, 18.1 and 18.4 (both descriptions of rain), Imruʿulqais, 48.72 (landscape during rain), and (I, 332) Imruʿulqais, 52.20 (stars), as outstanding masterpieces of classical descriptive art.

²² Cf. the detailed analysis of this technique in my *Wirklichkeitweite*, pp. 148-55.

²³ H. Ritter, *Die Bildersprache Nizāms* (Berlin and Leipzig, 1927), pp. 17-18, fails to do justice to the optical qualities of Arabic poetry.

²⁴ For references see *Wirklichkeitweite*, pp. 129-32 and n. 24 on p. 256. To these may be added the verses listed by Bräunlich, *loc. cit.*, p. 231, and, furthermore, Imruʿulqais, 3.9, 20.36; Bišr b. abī Ḥāzim, *Mufaḍḍaliyyāt*, 97.9; al-Ḥansā, J I 2 (cf. Rhodokanakis,

¹¹ E. Bräunlich, *Islam*, XXIV (1937), 229-37, analyzes various types of storm description. Further references are given by Gandz, *op. cit.*, pp. 96-111 (to Imruʿulqais, 48.65-76; the passage was translated by Lyall, *loc. cit.*, pp. 149-50, and *Translations of Ancient Arabic Poetry* [London, 1930], 103-4) and Wh, pp. 102-5. Aʿšā, 6.22-29, is remarkable for the otherwise rare connection of a storm description with a banqueting scene.

¹² Imruʿulqais, 20.7-10; Labid, 12.3-7, 16.7, 8; Ṭirimmāh, 46.4-6. Cf. ʿUmar, 80.10 (*bān-tree*).

¹³ Aus, 25.2-5; *Mufaḍḍaliyyāt*, 21.22, 26.13, 14; Quṭāmi, 3.16.

¹⁴ ʿAbid, 19.9-14. Cf. Jirān al-ʿAud (Cairo, 1350), 3.6 (p. 13.16), the beautiful comparison of the poet's tears with melting snow dripping from the twigs of a *sidra-tree*.

¹⁵ Nābiḡa, 7.15; al-Musayyab b. ʿAlas (al-Aʿšā's uncle, ed. by Geyer together with al-Aʿšā), 9.4-17 (trans. Lyall, *JRAS*, 1912, pp. 146-47); Qais, 5.13; al-Muḥabbal (d. between 640 and 650), *Mufaḍḍaliyyāt*, 21.14, 15; Abū Duʿaib, ed. J. Hell (Hanover, 1926), 11.18-22; Quṭāmi, 23.13-19; cf. also Muṭiʿ b. Iyās, *Agānī*, XXI (ed. R. Brünnow [Leiden, 1888]), 132¹² (=133⁸).

¹⁶ Mutalammis, ed. K. Vollers (Leipzig, 1903), 4.21; Aus, 26.3; aš-Šanfarā, *Lāmiyya*, 65-68 (and the somewhat meager parallels, G. Jacob, *Šanfarā-Studien* [Munich, 1914-15], II, 12-13); Ṭirimmāh, 1.54, 4.11, 12; Ibn ad-Dumainā, p. 17.3.

¹⁷ Cf. the references in Bräunlich, *loc. cit.*, pp. 222-26.

¹⁸ Aus, 29.15, 16; aš-Šammāh, *Bogenaḡida*, vss. 20-22 (ed. and trans. H. H. Bräu, *WZKM*, XXXIII [1926], 79-80); in *Agānī* (3d ed.; Cairo, 1927 ff.), IX, 161, aš-Šammāh is called: *auḡaf an-nās lil-ḡaus wa-lil-ḡimār*. Cf., further, G. Jacob, *Altarabisches Beduinenleben* (2d ed.; Berlin, 1897), pp. 131-32. Taʿlaba b. Aus, *Mufaḍḍaliyyāt*, 74.9; Tufail, 1.15; and Jamil, 88.3, also refer to the *nab*^c wood.

quently made mention of, is practically restricted to the *nasīb*.²⁵

III

The fear-inspired visions of the cosmological catastrophe of the Last Day in the earlier chapters of the Koran bespeak a view of nature entirely unrelated to the attitude of Mohammed's contemporaries, or, at any rate, marking a complete break with the traditional literary approach. The passionate grandeur of his portrayal of the Hour of Judgment and of the terrifying events that are to precede it deeply impressed his followers and provided a legitimate basis for the endless eschatological yarns of later religious narrators. Arabic poetry, however, either quietly eliminated or altogether ignored this offering of a radically new and, in a sense, foreign outlook on the universe.

The excited hyperboles of the Prophet's threatening forecasts and the direct-

ness with which he had cosmic and human events interwoven ran counter to the measured pace in which the poets had studied and appropriated the near, the tangible, and the demonstrable elements of their surroundings. Nor was poetry ready as yet to use nature as the starting-point for homiletics. And thus it came about that, no later than perhaps a decade or two after Mohammed's death, any influence his earlier revelations may have had on the poets' response to nature had been overcome, never again to be admitted into standard verse.

The attitude behind an outbreak such as

When the heaven shall be rent,
When the stars shall be scattered,
When the seas shall be made to boil up,
When the grave shall be ransacked,
A soul shall know what it has sent forward,
and what kept back²⁶

is not so much reflected in the much-discussed poems of Umayya b. abī ṣ-Ṣalt as in some of the elegies of al-Ḥansā' (d. 650).

Umayya, who, as we now know, was certainly not a source of Mohammed's but rather a younger contemporary under the impact of the same spirit that had formed the Prophet and who was later probably directly influenced by him,²⁷ did by no means compose in the established style. His somewhat awkwardly phrased descriptions of the creation, of heaven and hell, are little more than rhymed preaching with a view to moralizing: he was moved by doctrine rather than by vision.²⁸ Al-Ḥansā', on the other hand, has the mountain peaks tumble down because of the death of her brother; the stars hurl down, the earth shakes, and

op. cit., p. 30); Tirmidhī, 1.28 and 31; Jamīl, 27.20, 71.4; Ibn ad-Dumainā, p. 7.5; Kuṭayyir, 30.11, 59.1; Ibn al-Mu'tazz, I, 1.2. Important for its richness in comparisons is Ibn al-Mu'tazz, I, 12.19-13.9; cf., e.g., 12.21: "the cloud is weeping while within it the thunder laughs." Rūdagi, in Asadī, *Lughat-i Furs*, ed. P. Horn (Berlin, 1897), p. 83, reversed the acoustical interpretation: *zamānē barg pur ḥanda, zamānē ra'd pur nāla*. . . . The verse is missing in H. Ethé, *Rūdagi, der Sāmānidendichter*, GGN (Phil.-hist. Kl. [1873]), pp. 663-742, but is quoted and translated by U. M. Daudpota, *The Influence of Arabic Poetry on the Development of Persian Poetry* (Bombay, 1934), p. 95, n. 1. I. Goldziher, *Abhandlungen zur arabischen Philologie* (Leiden, 1896-99), I, 210-12, collects verses mentioning the noises caused by the *jinn*. Tirmidhī, 49.16, constitutes a quaint failure to achieve a correct comparison on an acoustical basis. Mistakes in the description of nature do not occur too frequently. Some instances are mentioned by the writer, *JAOS*, LXI (1941), 53, n. 17. Zuhair, ed. W. Ahlwardt, 9.16 (ed. C. Landberg, *Primeurs arabes* [Leiden, 1889], II, 119.4), who has frogs leap away from a water hole for fear of drowning, could be added. Cf. P. Schwarz, *Umar b. al-Rabi'a*, IV, 48, n. 1.

²⁵ For references see *Wirklichkeit*, pp. 127-28; the very full listing of aromas by Lichtenstadter, *loc. cit.*, pp. 51-52; *Wh*, pp. 79-85.265; and Baṣṣār (Ḥālidīyānī), pp. 97.10-100.2. 'Umar, 437.1, 2 (possibly by Mālik b. Asmā' al-Fazārī), and Abū Tamīm, 48.3, could be added. In this verse, Abū Tamīm compares, without precedent, it would seem, the smell of wine to that of a meadow. The verse was repeated verbatim by al-Buḥturī, I, 4.3.

²⁶ Sūra 82.1-5 (trans. R. Bell [Edinburgh, 1937-39], II, 640).

²⁷ Cf. F. Schulthess in the Introduction to his edition of Umayya, pp. 6-8.

²⁸ To verify this opinion cf. esp. 24.1-5, 25.13, 14, 27.1-8, 32.14-20, 34.5-10, and 41.1-23.

the sun ceases to shine. Without noticeable effort al-Ḥansâ presses the universe into service when she laments her dead in an extravagant orgy of grief.²⁹ She was admired but not followed. The development of the poetical *Naturgefühl* took an altogether different turn.

IV

The changes effected between the end of the classical phase and the downfall of the Umayyads (A.D. 750) can perhaps be summed up in the following seven observations. It is important to realize that the speed of change appears to have grown the closer we get to the end of our period. Moreover, it should be borne in mind whenever a change is diagnosed in Arabic poetry that this poetry never altogether discards elements and attitudes it once admitted. They continue, sometimes in a ghostlike manner, and are resumed or restated time and again, but their mention becomes lip service on the part of those poets who, with varying degrees of success, are striving for a more adequate expression of the unprecedented attitudes of their day. With this consideration in view, extent and limitation of the important innovations of that eventful time will be more correctly appraised.

Those innovations, then, are these:

1. The poet is more and more attracted to the softer, sweeter, friendlier aspects of his environment. He becomes increasingly interested in describing pleasant abodes and discovers the charm of the idyllic. He now prefers the watered strip of land to the endless desert;³⁰ he views the forsaken

²⁹ Cf. R XIII 1, L VI 38, and the other passages collected by Rhodokanakis, *op. cit.*, p. 21. Jarir, quoted by al-Mubarrad, *Kamil*, ed. W. Wright (Leipzig, 1864-92), 401^a, uses these same elements much more soberly in a *marṭiya* for 'Umar II. It is, however, to be observed that the elegy remains the genre employing the most forceful apparatus.

³⁰ Cf. Labid, 15.18-20, and *Mu'allaga*, vss. 25-35, also *Tirimmāh*, 18.17-19. Earlier examples provide 'Abid, 19.4-6, and *Jirān*, 1.43, 44 (pp. 7.15, 8.5). *Jirān*'s date, however, has not yet been established beyond doubt. The verses attributed by al-

homestead in the conciliatory light of the idyl,³¹ and the meadow becomes his favorite subject. While many a poet still perpetuates the traditional desert landscape, the future belongs to the milder settings of the luscious mead and the limpid rivulet.³²

2. Slowly the poet succeeds in establishing a personal relation to nature. Nature now begins to evoke in his heart an untraditional, an individual response. Al-Ḥansâ's memories of her brother are awakened by the sight of the monotonous plain stretched out under the dead light of the evening.³³ Labid compares his early life with a twig swayed by the winds.³⁴ Jamil feels affection for the land where his beloved alighted;³⁵ he asks the wind for Buṭaina's scent and intrusts a message to it,³⁶ and he wonders whether the cloud will refresh the lovesick.³⁷

This relatedness of the individual's ex-

Guzūlī, *Maḥāṣin al-budūr* (Cairo, 1299-1300), I, 118-19, to one Ṣafwān b. Idris, said to have died A.H. 98, obviously belong to a considerably later period.

³¹ Kuṭayyir, 3.6-9.

³² Classical poetry, too, was interested in meadows and water-runs. Cf., e.g., 'Abid, 1.8-10; Aus, 32.11; Bīṣr b. abī Ḥāzim, *Mufaḍḍaliyyāt*, 97.21, 22 (al-Aswad b. Ya'fur, *Mufaḍḍaliyyāt*, 44.28, still speaks of "dangerous meads"). But, on the whole, attention was focused on other elements of nature. The oldest detailed portrayal of a meadow is perhaps A'ṣā, 6.14-16. All the parallels adduced, *Wh*, pp. 86-89, are from a later date. These references may be supplemented by the following: 'Umar, 212.2; Jamil, 109.1, 124.7; al-Marrār b. Munqid, *Mufaḍḍaliyyāt*, 16.7; Kuṭayyir, 12.7, 8. The caliph Sulaimān's (d. 717) love for gardens is shown by a story recorded by al-Jbāli, *Mustatraf*, trans. G. Rat (Paris and Toulon, 1899-1902), II, 405 ff.

³³ Al-Ḥansâ, D I 8 (Rhodokanakis, *op. cit.*, p. 19). A related verse, S II 10, was imitated in love poetry by 'Umar, 204.4 and 318.3, and later by Baṣṣār b. Burd, p. 7.18.

³⁴ Labid, Frag. 10.1. In Poem 39.24 Labid speaks of his "fear of darkness."

³⁵ Jamil, 15.3.

³⁶ 120.1-3.

³⁷ 22.1. Here Jamil imitates 'Abid, 21.11. A rain description by Ibn Muṭair (*fl.* ca. 750) shows a good deal of animation of nature. The verses are quoted by Ibn Qutaiba, *Kitāb al-šī'r wa'š-šū'ara'*, ed. M. J. de Goeje (Leiden, 1904), pp. 26-27; *Iršād*, IV, 99; al-Marzūqī, *Kitāb al-azmina wa'l-amkina* (Haidarābād, 1332), II, 98-99.

perience with his natural environment remains and expands the more Arabic poetry progresses.³⁸ Kuṭayyir stimulates his flagging inspiration by walking over green meadows;³⁹ al-Farazdaq prefers the more rugged sights of mountain defiles and ruins.⁴⁰ A little later, Abū Nuwās confesses to needing the sweet scent of flowers for his work,⁴¹ and al-Ḥalfī proclaims that "he is no poet whose verses do not flow from solitude."⁴²

With all this it takes another two hundred years before Ibn Ṭabāṭabā (d. 956) speaks enraptured of the beauty of a flooded valley, thus, perhaps for the first time, consciously reaching an aesthetical judgment with respect to a phenomenon of nature.⁴³

3. Hitherto neglected parts of the poet's environment are gradually being conquered. The interest in water scenes grows considerably, to develop still more in the Abbasside age. Al-Aṣṣā is much preoccupied with describing the canals of

Mesopotamia,⁴⁴ Umayya devotes attention to Noah's boat,⁴⁵ and at the end of the eighth century Muslim b. al-Walid ventures onto a picture of a storm at sea.⁴⁶ A century later, al-Buḥturī tries his hand at a sea battle, the only extant instance of such a theme being treated in Arabic poetry up to A.D. 1000 (and perhaps even later).⁴⁷

The same trend works to extend the use of more or less elaborate scenery as background of love scenes (other than *nasīb*). To present lovers in an appropriate natural setting had become rather customary around 700. The art of such presentation became increasingly refined in proportion as the tie between certain emotions and certain settings (as described under *b* above) weakened. By the end of the Umayyad period a remarkable degree of perfection had already been achieved.⁴⁸

4. An attempt is being made to enrich description of nature by presenting picturesque ruins. The poets now halt occasionally at dilapidated buildings rather

³⁸ Cf. Ibn ad-Dumainā, p. 14.1, 2 and p. 33.11-13; 'Umar, 126.3; Abū Nuwās (Ahlwardt), 9.1-9.

³⁹ Ibn 'Abdrabbihī, *Al-ʿIqd al-farīd* (Cairo, 1353/1935), III, 422; Ibn Raṣīq, *Al-ʿUmda* (Cairo, 1353/1934), I, 180. Synesios (d. before 415) is moved by the same type of scenery. Cf. his *Dion*, chap. xi, *MPG*, LXVI, 1149A. Nuṣaib (*fl.* ca. 700), *Aḡānt*, I, 145²⁶, and Kuṭayyir, Ibn Qutaiba, *Ši'r*, p. 18⁸, go into the desert for inspiration; cf. P. Schwarz, *Der Diwan des 'Umar b. al-Riḥāb*, IV (Leipzig, 1909), 53-54, and 53, n. 7.

⁴⁰ *Umda*, I, 181.

⁴¹ *Iqd*, III, 421.

⁴² *Umda*, I, 186. *Iqd*, III, 421, quotes as the opinion of the *ḥukamā'*: "The best inspiration for successful poetry is flowing water, a lonely spot and a lofty hill. Some interpret the 'lonely spot' as meaning 'meadows.'" *Umda*, I, 180, ascribes the saying to al-Aṣma'i. *Muwāṣṣah*, p. 305, presents Abū Tammām as unsuccessfully trying to stimulate his imagination by spending three days in a garden. It is interesting to note that the Romans of the Augustan age had the same ideas of the interrelation of nature and poetical inspiration. Cf. G. Riedner, *Typische Äusserungen der römischen Dichter über ihre Begabung, ihren Beruf und ihre Werke* (Nürnberg, 1903), pp. 39-40. But Quintilian *Institutiones* 10. 3. 22-24 contradicts those who feel that woods and groves are the most suitable localities for successful writing.

⁴³ *Diwān al-ma'ānt*, II, 11.6-11. His contemporary, al-Iṣṭahri's (*fl.* 950), prose description of the beauties of Transoxiana (*BGA*, I, 293-95), while not inspired by artistic ambition well represents the taste of the age.

⁴⁴ Cf. Aṣṣā, 3.22-24, 4.36-39, 5.55-58, 12.55-57, 13.58-61, 28.31-33, 55.35, 36 (trans. *Mb*, pp. 144-46).

⁴⁵ Umayya, 28.10-13, 29.1.

⁴⁶ Muslim, 12.10-29 (pp. 85 ff.).

⁴⁷ Buḥturī, II, 22-24. An-Nuwayrī, *Nihāyat al-arab* (Cairo, 1923 ff.), VI, 197, asserts that, according to al-Askari, it is only al-Buḥturī who, among all the ancients and moderns, has composed the description of a sea battle.

Other references to illustrate the development: 'Abid, 8.5, 6; Baṣāma b. 'Amr, *Mufaḍḍaliyyāt*, 10.21; Labid, 13.14, 15; Umayya, 30.10, 11, 32.25; Kuṭayyir, 75.8, 9; Abū Nuwās, *Kāmil*, p. 515.6-8 (ship); Abū Tammām, 128.2; Ḥusain b. aḍ-Ḍaḥḥāk, *Aḡānt* (3d ed.), VII, 195-96 (ship); Buḥturī, II, 3.1-3, 234.9 (Euphrates); Ibn ar-Rūmī, 5.9-6.7 (Tigris), 405 (No. 423 [ship]).

⁴⁸ 'Umar, 163.2-5, 308.3, 4 (for 'Umar's use of nature cf. Schwarz, *op. cit.*, IV, 48); Yazid b. Mu'āwīya, *Escorial-Studien* (Stuttgart, 1922), 10.1, 2 (midnight in the steppe; for chronology and genuineness cf. G. L. Della Vida, *Islamica*, II [1926], 378); al-Walid b. Yazid, ed. F. Gabrieli, *RSO*, XV (1934), 1-64, 10.2. Cf. also the attractive description, Muslim, p. 38.4.

That full integration of nature and emotion that had been achieved by some of the Greeks never was vouchsafed the Arabs. There is nothing in their poetry to match, e.g., Theokrit, VIII, 55-56:

"I have no wish but to sing sitting beneath this cliff embracing you,
Fair friend, looking out on the Sicilian sea."

than at deserted homesteads.⁴⁹ The critics strongly object,⁵⁰ and their protests delay the acceptance of buildings as a legitimate theme of poetic endeavor until deep in the Abbasside period, in which the subject wins recognition but this time not in connection with the—ever more declining—*nasīb*.⁵¹

5. Arabic poetry remains impervious to exotism even to the extent of recording characteristic features of places or countries the poet mentions by name. A striking illustration is provided by a long *qaṣīda* of Aṣḥa Hamdān (d. 702) that culminates in a bitter complaint about having to go to Mukrān—the poet has not one word on the forbidding scenery of that province and refers only to the poverty there prevailing and to the fact that “the beards of its inhabitants grow long on account of the heat, so that they have to be clipped straight or plaited.”⁵²

6. Nostalgia becomes a recognized theme for the poet. It is the scenery of his home country which excites his longing or else a hot wind or a cloud bring back to the poet the peculiar flair of his fatherland and make him wish to return. Thus Ibn ad-Dumaina yearns for the Yemen, describing to himself its fertile land,⁵³ and

is comforted by the sight of a “Yemenite” cloud.⁵⁴ Aṭ-Ṭirmīmāḥ is surprised by “a hot wind which raises clouds of dust, driving along the fallen prickles of barley-grass and chasing them.” And this wind “excited unawares yearning in those far away from their home land, blowing cross-ways from the mountain road of Naj-rān.”⁵⁵ Two centuries later, al-Askari lauds nostalgia as a noble feeling.⁵⁶

7. An attempt is made to sentimentalize, or to romanticize, nature. ‘Umar b. abī Rabī’a addresses the Two Palms of Wādī Buwāna in a love poem.⁵⁷ Ibn ad-Dumaina treats the *bān*-tree as a feeling being.⁵⁸ The most famous instance of this trope are the much-quoted verses of Muṭṭi b. Iyās, with their apostrophe of the two palm trees of Ḥulwān.⁵⁹ An unnamed

⁴⁹ Ibn ad-Dumaina, p. 14.1, 2.

⁵⁰ Ṭirmīmāḥ, 5.27, 28 (trans. Krenkow). Probably to the same period belong the nostalgic verses by Ḥalīd az-Zubaidī, which Yāqūt quotes in both *Iršād*, IV, 159, and *Muʿjam al-buldān*, ed. F. Wüstenfeld (Leipzig, 1866-73), III, 159.

⁵¹ *Diwān al-maʿānī*, I, 193. It is highly significant that al-Askari in his chapter on nostalgia (as inspired by the landscape of the home land), *op. cit.*, II, 186-94, does not cite a single illustration from heathen times. He might, however, have quoted Mutalammis, 4.6-13, and ‘Abid, 10.5. According to Muḥammad an-Nadīm, *Fihrist*, ed. G. Flügel (Leipzig, 1871-72), p. 50, Rabī’a al-Baṣrī wrote a *Kitāb ḥanīn al-ibīl ilā ʿl-auṭān* (mentioned by Bräun, *SBWA* [Phil.-hist. Kl.], Vol. CCIII [1927], Abh. 4, p. 13). Jāhiz, too, has a tract on nostalgia. Moreover, in his tract on the *Virtues of the Turks* he discourses at length on this subject. Cf. *Tria Opuscula*, ed. G. Van Vloten (Leiden, 1903), pp. 40-43; trans. C. T. Harley Walker, *JRAS*, 1915, pp. 678-82. Al-Ḥasan b. ‘Abdarrahmān b. Ḥallād ar-Rāmhurmuzī (d. 971) wrote a *Kitāb al-manāḥil waʿl-afān waʿl-ḥanīn ilā ʿl-auṭān* (*Iršād*, III, 140). Ar-Rāḡib al-Isfahānī, *Muḥaddarat al-udabāʾ* (Cairo, 1326), II, 276-77, has a chapter *fi ʿl-ḥanīn ilā ʿl-auṭān*.

⁵² ‘Umar, 421.1. Muḥammad Murtaḍā, *Tāj al-ʿarūs* (Cairo, 1306-7), IX, 146³⁸, ascribes the verse to Waḍḍāḥ al-Yaman.

⁵³ Ibn ad-Dumaina, p. 15.2-6.

⁵⁴ *Āḡānī* (Būlāq, 1285), XII, 107-8, and often (the references will be given in the writer's edition of the fragments of Muṭṭi, Salm al-Ḥāsir, and Abū ṣ-Ṣamaqmaq). Verse 4 is said to have prevented both al-Mahdī and ar-Raṣīd from cutting the palm(s), *Āḡānī*, XII, 108-9. The verses are translated by F. Rückert, *Ḥamāsa* (Stuttgart, 1846), p. 311 (in a note to No. 273), reprinted by O. Rescher, *Abriss der arabischen Literaturgeschichte* (Stuttgart, 1925-33), I, 284. The proverb also took hold of the two palms of

⁴⁹ Cf. Goldziher, *Abhandlungen*, I, 127, with references from Ibn Qais ar-Ruqayyāt, *Dū ʿr-Rumma*, and Abū Nuwās. See also Abū Qatīfa al-Muʿallī, *Āḡānī* (3d ed.), I, 11.

⁵⁰ Cf. Ibn Qutaiba, *Kitāb aṣ-ṣīr waʿṣ-ṣuʿarāʾ*, ed. M. J. de Goeje (Leiden, 1904), p. 16 (trans. Th. Nöldeke, *Beiträge zur altarab. Poesie* [Hanover, 1864], p. 20), where it is expressly forbidden to reminisce at a walled building.

⁵¹ See below, V, 2.

⁵² Aṣḥa Hamdān, ed. Geyer, 20.37-57. The verse translated is vs. 41. Another illustration: aṣ-Ṣammāḥ, *Kāmil*, p. 6 (*Āḡarbaijān*). Cf. also n. 1 above.

Parading of exotic place names is rare in Arabic poetry (except for the mention of desert places of classical renown which epigones repeat without ever having been there). Aṣḥa, 55.35 (trans. *Mb*, p. 146), and ‘Umar, 266.11, probably are cases in point. Aṣḥa, 3.22 (trans. *Mb*, p. 143), and Ṭirmīmāḥ, 17.4, on the other hand, are likely to represent genuine reminiscences.

⁵³ Ibn ad-Dumaina, p. 11.1-6. In a similar vein are the anonymous verses *Kāmil*, p. 676.

poet⁶⁰ and the *kâtib* Aḥmad b. Ibrāhīm⁶¹ imitated Muṭi's appeal. So does Ḥammād 'Ajrad⁶² and, perhaps a century later, Ḥammād b. Ishāq b. Ibrāhīm al-Mausili.⁶³ Under Hārūn, the sister of Ṭarīf al-Ḥārījī begins a dirge for her brother by addressing the "Tree of the Ḥābūr."⁶⁴ And the motive was still acceptable to Ibn al-Mu'tazz, who on one occasion invokes the lotos tree of the valley.⁶⁵

V

In the Abbasside age there emerged gradually a new outlook on nature, reached in part in continuation of prior developments, but in part adding original elements to the constantly remodeled heritage. The essential features of the Abbasside *Naturgefühl* as revealed (most-ly) in poetry can perhaps be summarized in the following manner.

Ḥulwān; cf. G. W. Freytag, *Arabum proverbialia* (Bonn, 1838-43), II, 47. A. von Kremer, *Culturgeschichtliche Streifzüge* (Leipzig, 1873), p. 74, takes brief notice of the motive.

⁶⁰ *Ājānt*, XII, 109, and Yāqūt, *Mu'jam*, ed. F. Wüstenfeld (Leipzig, 1866-73), II, 321.

⁶¹ *Ājānt*, XII, 110, and Yāqūt, II, 321.

⁶² *Ājānt*, XIII, 94, and at-Ta'ālībī, *Timār al-qulūb* (Cairo, 1326/1908), p. 469. Ḥammād observes somewhat mockingly that the two *sidra*-trees of Qaṣr Štrīn did not help him, whereas the two palms of Ḥulwān wept for Muṭi.

⁶³ *Timār*, pp. 469-70.

⁶⁴ Muslim, p. 16.12.

⁶⁵ Ibn al-Mu'tazz, I, 65.15. Th. Chenery, *The Assemblies of al-Ḥarīrī*, I (London, 1867), 285, discusses the story of the palms of Ḥulwān. Rhodokanakis (*op. cit.*, pp. 97-99) makes it convincingly clear that the *as'idānī* phrase hails from the *riḍā* poetry. It was first addressed to the eyes, then to persons, finally to the trees.

In connection with "sentimentalization" of nature mention should perhaps be made of another type of personification or allegorization. The comparison of people with the sun, the moon, or the stars, while already in vogue in the Jāhiliyya, becomes more and more popular. Cf. Nābigha, 3.10 (and the many imitations of this verse); Ṭufail, 2.6; 'Umar, 5.9, 19.14, 168.11; al-Ḥansā' R XX 1; Jamīl, 57.13; Abū Tamām, 374.13; and many more. Comparison of two closely united people with two twigs, e.g., al-Ḥansā', R XXI 1, 2, and the anonymous verses in Ibn Qutaiba, *Uyūn al-ahbār* (Cairo, 1925-30), IV, 39.9, 10. Particularly beautiful is al-Walid's comparison of his beloved to a garden, Frag. 56.1-3. Other instances of personification: Umayya, 25.39-45 (moon), 25.46-48 (sun); al-Aswad b. Ya'fur, *Mufaḍḍaliyyāt*, 44.61 (death).

1. The move away from the rugged and forbidding in nature becomes final. Although convention still compels desert scenery in the *qaṣīda*, contemporary taste definitely prefers the light and the bright. Meadow description is being further developed.⁶⁶ The artificially laid-out garden becomes a favorite subject with the poets.⁶⁷ Abū Nuwās includes the garden among the "four desirable things" in life (the other three being water, wine, and a beautiful face).⁶⁸ Ibn abī 'Uyayna tells how he "became attached [to a garden] and took it for his home land."⁶⁹

The ideal landscape is a fruitful, well-watered plain, perhaps surrounded by mountains.⁷⁰ Spring is the season most

⁶⁶ Cf. Muṭi, *Ājānt*, XII, 103²⁰; Abū Nuwās (Ahlwardt), 56.5-7; Baṣṣār, 33.14 and 16, 36.3 ff., 41.11 and 16; Buḥturī, II, 73.10, 319.6 ff.; Ibn ar-Rūmī, 75.14-76.4 (No. 94); Kuṣājim, *Diwān al-ma'ānī*, II, 29.17-30.6; ar-Raffā', 73.22-74.3; al-'Askari himself, *Diwān al-ma'ānī*, II, 17.4-10.

⁶⁷ A harbinger of the Abbasside style is Ibn Qais ar-Ruqayyāt, ed. N. Rhodokanakis, *SBWA* (Phil.-hist. Kl.), Vol. CXLIV, Abh. 10 (1902), 3.6-8 (cf. *Wirklichkeit*, pp. 170-71). Cf., later, 'Abdassamad, *Diwān al-ma'ānī*, II, 15.6-22; Ibn ar-Rūmī, 20.1-8 (No. 30); Ibn al-Mu'tazz, II, 111.6-112.3 (part of the *muzdawij* poem *fi ḍamm aṣ-ṣabāḥ*; cf. the writer, *JNES*, III [1944], 11, n. 29). As a curiosity, Ibn ar-Rūmī's poem *fi ḍamm al-bustān*, *Diwān al-ma'ānī*, II, 45, may be mentioned. *Iršād*, IV, 193, preserves a beautiful garden passage by Dā'ūd b. al-Ḥaiṭam (d. 928). Ibn Ḥazm's garden description, in prose and verse, *Tauq al-ḥamāma*, ed. D. K. Pétrof (Leiden, 1914), pp. 93-94 (trans. A. R. Nykl [Paris, 1931], pp. 143-44), deserves recording for its beauty. The affinity of the taste of this age with that of later Hellenism is worthy of notice.

⁶⁸ Abū Nuwās (Ahlwardt), 71.3. This verse is probably a parody of, or at least an allusion to, Imru'ulqais, 36.1-7, and Ṭarafa (ed. Ahlwardt), 4.56-9.

⁶⁹ *Uyūn*, I, 217-18 (= *Uyūn*, ed. C. Brockelmann [Berlin and Strassburg, 1900-1908], p. 261, and *Ājānt*, XVIII, 21¹³). Other verses of Ibn Abī 'Uyayna (d. 791) praising a castle built on the bank of a canal near Basra, Mas'ūdi, *Murūj al-ḡahab* (Paris, 1861-77), VI, 292 (somewhat different, *Uyūn*, I, 217 [= *Uyūn*, ed. Brockelmann, p. 261]). These verses are also ascribed to al-Ḥallī; cf. at-Ta'ālībī, *Laṭā'if al-ma'ārif*, ed. P. de Jong (Leiden, 1867), pp. 102-3, and al-Qazwini, *Cosmography*, ed. F. Wüstenfeld (Göttingen, 1848-49), II, 206.

⁷⁰ Cf. the prose passage, Mas'ūdi, VI, 437-38. In *ibid.*, VIII, 311, the courtiers of the caliph ar-Rāḍī break into raptures over a garden.

dear to the poet's heart;⁷¹ cheerfulness and grace the atmosphere he tries to find and to spread. Elegance replaces grandeur; playful wit, exertion and danger. If a catastrophe is chosen as the subject of a poem, the poet presents a lively, precise, but altogether smiling vignette.⁷² The power of rendering the forceful and indomitable aspect of nature is lost. The "nature" of the age is the nature of city people who may but need not live in intimacy with the nonurban world.

It is significant for the general sentiment that al-Ġazālī, when discussing love of beauty, speaks of the pleasure caused by the sight of a meadow, of running water, and of fresh fruit.⁷³ He mentions the Prophet's predilection for greens and water courses and asserts that to look at flowers, blossoms, and birds will always give joy to a healthy mind.⁷⁴

2. The rise of city lyrics is marked by the extension of nostalgia from the countryside to the town. Toward the end of the seventh century already, Abū Qaṭīfa al-Mu'aiṭī expresses his longing for Medina.⁷⁵ Abū Nuwās finds the surroundings of Bagdad too pleasant to leave them for his pilgrimage to Mecca,⁷⁶ and he appears conscious of the beauty of the famed *iwān-i Kisrā*.⁷⁷ At about the same time

Ibn abī 'Uyayna describes and praises a castle in Basra.⁷⁸ Later, the *iwān* became the first building to be described at great length in an elaborate poem.⁷⁹ Even before al-Buḥturī wrote his celebrated *qaṣīda* that contains this description, Ishāq b. Ibrāhīm al-Mausilī (d. 850) gracefully portrayed the setting of the city of Najaf⁸⁰ and 'Alī b. al-Jahm (d. 863) again expressed nostalgic feelings for Bagdad.⁸¹

In the following century aṣ-Ṣanaubarī and as-Sarī ar-Raffā' complete, as it were, the conquest of this subject by their descriptions of Aleppo⁸² and Mosul,⁸³ respectively. It would appear that ar-Raffā', to whom we also owe moving expressions of his longing for his home town,⁸⁴ attained to even greater perfection in the treatment of the city theme than his older contemporary.⁸⁵

⁷⁸ *Uyūn*, I, 222 (= *Uyūn*, ed. Brockelmann, p. 266); cf. also Yāqūt, IV, 109. A similar setting is described by Mutanabbī, in F. Dieterici, *Mutanabbī und Seifuddaula* (Leipzig, 1847), pp. 45-46 (not in his *Diwān*, ed. F. Dieterici [Berlin, 1861]).

⁷⁹ Buḥturī, II, 57.15-59.1. Cf. A. Christensen, *L'Iran sous les Sassanides* (Paris, 1936), pp. 387-88. It hardly needs mention that references to buildings in classical poetry such as Imru'ulqais, 40.7; Tufail, 9.16; Qais, 7.5; and those collected in *Mb*, pp. 114-17, do not represent descriptions. Nor do the interesting lines of Abū Dahbāl al-Jumahlī, ed. F. Krenkow, *JRAS*, 1910, p. 1065, Poem VI, 7-8, where he refers to the marble halls of Damascus. According to Krenkow, *op. cit.*, p. 1021, the poem was composed in A.H. 50.

⁸⁰ *Ġazālī* (3d ed.), IX, 285. The verses were composed between 842 and 847. He also composed nostalgic verses when away from Bagdad in aṣ-Ṣālihiyya, *Ġazālī*, IX, 285.

⁸¹ *Iqd*, IV, 106. In *Umda*, I, 113, Ibn Raṣīq puts a poem expressing nostalgia for Qairawān, written 1014/15, on the same level with any early Bedouin verse inspired by longing for the Najd, etc. *Iršād*, VII, 83-85, has an interesting *qaṣīda* by al-'Imād al-Iṣfahānī, written ca. 1175 to express his yearning for Damascus.

⁸² Yāqūt, II, 311-15.

⁸³ Ar-Raffā', 97.25-98.23, 129.27-131.6, 279.20-281.19.

⁸⁴ Ar-Raffā', 186-87, 282-83. Descriptions of buildings: ar-Raffā', 35.5-36.15, 161.19-162.24; *Uyūn*, I, 311-15 (= *Uyūn*, ed. Brockelmann, pp. 360-64); Nuwairī, I, 406 ff.

⁸⁵ A further expression of nostalgia for a city home: Abū Dulaf (for al-Ahwāz), in Bakr b. 'Abdal'azīz

⁷¹ Cf. Buḥturī, I, 3.20-24; II, 234.11-17; Ibn ar-Rūmī, p. 89 (No. 111); Ibn al-Mu'tazz, II, 43.11-15. Particularly beautiful are the verses of aṣ-Ṣanaubarī, quoted by Daudpota, *op. cit.*, pp. 118-19. *Iršād*, III, 138-39, quotes a poem by Abū Hilāl al-'Askari (d. 1005), preferring winter to the other seasons. This poem is followed immediately by verses of Muḥammad b. Muḥammad b. Irkālā (?) championing spring. Ismā'il b. Muḥammad (d. ca. 1048 in Seville) wrote a *Kiṭāb fi faṣl ar-rabi'* from which *Iršād*, II, 358, transcribes five verses.

⁷² Cf., e.g., Ibn al-Mu'tazz, II, 123.21-124.2, and ar-Raffā', 11.22-12.6, on floods in Bagdad. Part of ar-Raffā's charming poem is quoted in *Diwān al-ma'ānī*, II, 11.13-18.

⁷³ Al-Ġazālī, *Kīmīyā' as-sa'āda*, trans. H. Ritter (Jena, 1923), p. 64.

⁷⁴ *Ibid.*, p. 147.

⁷⁵ *Ġazālī* (3d ed.), I, 21.

⁷⁶ Ed. Ahlwardt, Poem 27.

⁷⁷ *Ibid.*, 10.20. Before him, Aṣṣā Hamdān, 47.1, 2, had mentioned the monument.

3. One of the prohibitions of the theorists that proved especially ineffective was Ibn Qutaiba's (d. 889) refusal to allow the poet the description of the rose and the narcissus to replace that of desert plants no longer familiar to artist and audience.⁸⁶ It may be said that the mastering of the fruit-and-flower theme was one of the most outstanding features of the critic's own and the following centuries. Some flowers, such as the camomile, had early attracted attention.⁸⁷ But now it is the rose in all its varieties, the narcissus, the anemone, and similar flowers, and the orange, the lemon, the pomegranate, etc., among the fruit that become favorite themes for the display of descriptive ability.⁸⁸ The form of the *munâẓara*, the competitive strife between two objects, provides a convenient opportunity to add wit and erudition to the always required exactitude of description.⁸⁹

...., ed. F. Krenkow (Dihli, 1337), pp. 32-34. Ibn ar-Rûmî, p. 13 (No. 11), explains the love for one's homeland with the reminiscences of one's youthful days that are attached to the birthplace. Cf. also his verses, p. 75 (No. 93). A. Mez, *Renaissance of Islam* (London, 1937), p. 477, records the belief that the Basrians were not subject to homesickness.

⁸⁶ Ibn Qutaiba, p. 16 (trans. Nöldeke, p. 21). Ibn al-Mu'tazz, I, 50.20, mentions the *qaiṣûm* recommended by Ibn Qutaiba.

⁸⁷ It frequently occurs in the *nasīb*, in which the whiteness of the beloved's teeth is likened to it. So still 'Umar, 197.10. Other flowers, Ibn ad-Dumaina, pp. 42.11 and 55.13.

⁸⁸ Cf., e.g., Ibn ar-Rûmî, p. 143 (No. 88; banana); p. 412.1-4 (part of No. 435; the same); p. 146 (No. 195; *miṣmīṣ*); p. 238 (No. 248; palm tree). *Diwān al-ma'ānī*, II, 40, quotes verses by 'Abdassamad, a contemporary of Abū Tammām, as the most beautiful modern passage on the palm tree. Three verses on the rose by al-Faṭḥ b. Ḥaḡān (d. 861) are quoted in *Iršād*, VI, 118-19. Further examples: Ibn al-Mu'tazz, II, 118.14, 15 (lemon); ar-Raffā', 98-99 (*nāranj*, narcissus, *utrujjat al-ḥamāra*), 133.16-19 (lemon), 133.21-27 (illy), 135.18-22 (rose), 141-42 (*nāranj*), 142.8-10 (white rose), 145 (narcissus), 149.5-8 (anemone), 156.21, 22 (*nillāfar*), *Muwāṣṣā*, pp. 136-38, devotes a special chapter to verses dedicated to the description of roses. According to *Iršād*, VII, 50, al-Marzubānī compiled a book *al-Anwār wa'l-kimār fīmā qlla fi 'l-ward wa'n-narjis wa-jam' al-anwār min al-aṣ'ār wa-mā jā'a fihā min al-āṭār wa'l-aḡbār*.

⁸⁹ E.g., Ibn ar-Rûmî, p. 76 (No. 96; narcissus/rose), p. 389 (No. 401; the same); al-Askari, *Diwān*

The most salient feature of all the descriptive poetry of the age is the sudden increase in color-consciousness. It is reported that al-Mutawakkil was so fond of roses that not only did he reserve this flower for himself but at one time he dressed in rose color and had only rose-colored carpets and pillows around him.⁹⁰ Of the same caliph it is told that he wished to be surrounded entirely by yellow whenever he sat down to drink wine.⁹¹ It was in this same spirit that poetical description increasingly excelled in precise color shades.⁹²

4. The poetry of wine and banqueting is now regularly being given a background of nature description. Naturally, meadows and gardens predominate. In fact, a great proportion of all meadow and gar-

al-ma'ānī, II, 23.16, 17 (the same). On the *munâẓara* as an artistic form see the author, *JAOS*, LXII (1942), 287, and esp. n. 107. Pp. 49-50 (No. 57; palm tree/*'ausaj*) Ibn ar-Rûmî adds a moral point to the description. He does the same in three verses illustrating the observation that "oaks may fall when reeds may stand the storm," quoted by Daudpota, *op. cit.*, p. 111. Ibn ar-Rûmî's contemporary, Aḡmad b. abī Ṭāhīr Ṭāifūr (d. 893), wrote a *Kitāb faḡd'il al-ward 'alā 'n-narjis* (also quoted as *Kitāb mufāḡharat al-ward wa'n-narjis*) which, according to GAL, Suppl., I, 131, was more voluminous than a *risāla* on the same subject by Ibn Lankak of Basra (*fl. ca.* 935).

⁹⁰ Ġuzūlī, *op. cit.*, I, 93. Already al-Ma'mūn is said to have greatly liked roses. The caliph al-Mu'tazz drinks in a garden filled with wild thyme (*nammām*) and anemones. When his favorite, Yūnus b. Buḡā, enters in a blue frock, the caliph improvises:

"I like the red of his cheek against his dress,
And (both) against anemones in the midst of wild thyme."

(*Aḡānī* [3d ed.], IX, 318-19).

⁹¹ *Islamic Culture*, XVI (1942), 204-5 (Muḡammad 'Abdul-Mu'īd Khān). Astrological implications of such color arrangements cannot be ruled out. In Niẓāmī's *Haft Paikar* King Bahrām spends Sunday in a gold-colored and Thursday in a sandalwood-colored pavilion—the colors chosen being those of the planet regent of the day.

⁹² Cf. passages like Abū Tammām, 248.6; *Diwān al-ma'ānī*, II, 19^a (anon.); Ibn al-Mu'tazz, II, 27.14, 28.11. In this connection I should like to mention that *aḡḡar*, "green," is quite commonly used where we would expect *aswad*, "black," to be employed; e.g., Ḥassān b. Ṭābit, ed. H. Hirschfeld (Leiden and London, 1910), 184.4 (= ed. Tunis, 1281, p. 35.19), with reference to a man's skin; Abū Tammām, 385.4, and Buḡtūrī, II, 5.19, as epithet of the night.

den descriptions of this age are in intimate connection with a drinking-scene.⁹³ At the same time flowers have become an indispensable accessory of the reveling.⁹⁴ This is remarkable, as flowers are conspicuously absent in the wine poems of the representative *ḥamriyyāt* poets of earlier times, such as ʿAdī b. Zaid, al-Aḥṭal, al-Walīd b. Yazīd, and even Abū Nuwās.⁹⁵

5. On the formal side the main contribution of the age is the development, or rather the perfecting, of what may be called the poetical "snapshot": a small group of verses, usually between two and seven, purporting to capture some fleeting view, some momentary impression.

There have always been attempts at brief and poignant characterization of striking objects in Arabic poetry. The innovation, then, consists partly in the more richly developed technique of selection and presentation, but mainly in that these little sketches no longer are episodes of minor import within the more pretentious composition of the full-length *qaṣīda* but that they have attained to independence. It has become perfectly legitimate for a poet to cultivate the epigrammatic sketch for its own sake, with no view to making it fit into the framework of a more comprehensive form. Their gift of precise characterization had led the Arabs comparatively early to condensing the significant features of a landscape or a town into one or two verses.

Mutalammis describes forcefully the valley of al-ʿIrāq in the *Yamāma*,⁹⁶ Jamīl

the Wādī ʿl-Qurā.⁹⁷ The type is well represented by this rather unfriendly portrait of al-Aḥwāz.

Do not make me go back to al-Aḥwāz [*sic*] for a second time and to the (hill) Qaʿqaʿān that borders on the market;

Nor to the Duck Canal (*nahr al-baṭṭ*) where mosquitoes kept me awake with pitiless stings.⁹⁸

On the whole, these sketches give vent to rather critical feelings. The numerous snapshots of Bagdad which we owe to Ibn al-Muʿtazz are mostly occasioned by the thought of the untiring mosquitoes which kept the prince from sleeping.⁹⁹

A second class of epigrams, more definitely of ninth-century origin, undertakes to draw in a few bold strokes the picture, say, of a cloud¹⁰⁰ or a constellation,¹⁰¹ a water wheel¹⁰² or a pond.¹⁰³ Ibn ar-Rūmī's "Sunset" is fairly typical.¹⁰⁴

⁹⁷ Jamīl, 116.2.

⁹⁸ Al-Balāḍuri, *Futūḥ al-buldān*, ed. M. J. de Goeje (Leiden, 1866), p. 383; the anonymous verses are quoted and translated by Barbier de Meynard, *Dictionnaire de la Perse* (Paris, 1861), p. 58. Their rendering in the translation of the *Futūḥ* by P. K. Hitti and F. C. Murgotten (New York, 1916-24), II, 122, slightly differs from mine. In fairness to al-Aḥwāz it must be mentioned that Abū Dulaf, *apud* Bakr b. ʿAbd al-ʿaziz, App. 1.8, 9 (p. 33), speaks longingly of it.

⁹⁹ E.g., Ibn al-Muʿtazz, I, 50.14-21; II, 22.15-17, 108.10-16, 114.17, 18, 120.16. Other instances of this kind of snapshot are ʿUmar, 202.1, 2 (the poet envies Iraq for the Euphrates water and the scent of cool nights), and Buḥtūrī, II, 62.3. *Iršād*, I, 396¹⁵⁻¹⁸, quotes an unusually pleasing snapshot of nature as background of a banquet scene by Aḥmad Jahḥa (d. 936). More elaborate descriptions of scenery are the two beautiful passages of Mutanabbi (ed. Dieterici), 58.32-36 (pp. 152-53 [Lake Tiberias]) and 281.1-9 (pp. 766-67 [the valley of Bawwān]; cf. Daudpota, *op. cit.*, p. 116).

¹⁰⁰ Ibn ar-Rūmī, p. 362 (No. 357); ar-Raffāʿ, 257.9-14; Ibn al-Muʿtazz, II, 121.14-16.

¹⁰¹ Ar-Raffāʿ, 98.11-16.

¹⁰² Ar-Raffāʿ, 40.21-24, 151.20, 21.

¹⁰³ Ar-Raffāʿ, 65.23-27. Aḥmad b. Muḥammad as-Suḥailī (d. 1027) describes the rays of the moon on water (*Iršād*, II, 102-3).

¹⁰⁴ Ibn ar-Rūmī, p. 446 (No. 478). Cf. Ibn al-Muʿtazz, II, 127.5, 6 ("evening"). Other subjects: e.g., a meadow: Ibn ar-Rūmī, p. 69 (No. 77), p. 335 (No. 329); Ibn al-Muʿtazz, II, 120.4, 5; a bridge: ar-Raffāʿ, 14.4-6; a cold day: ar-Raffāʿ, 135.24-136.2; snow: ar-Raffāʿ, 230.3-13; fruits: Ibn al-Muʿtazz, II, 117.6-8, 123.15, 16; flowers: Ibn al-

⁹³ E.g., Abū Tammām, 45.5-46.1; Ibn ar-Rūmī, p. 403.7-9; Ibn al-Muʿtazz, II, 27.22. A nightly banquet, ar-Raffāʿ, 9.18-10.1.

⁹⁴ Mez, *op. cit.*, p. 260. At-Tanūḥī, *Niṣwār al-muḥāḍara*, ed. and trans. D. S. Margoliouth (London, 1921-22), text, pp. 144-45, trans., p. 158, describes a flower arrangement for a drinking-bout of the caliph ar-Rāḍī.

⁹⁵ For al-Aḥṭal's wine poetry cf. I. Krachkovsky, *G. Jacob—Festschrift* (Leipzig, 1932), pp. 146-64. The only mentions in old poetry of flowers at a banquet which I have come across are al-Aʿšā, 55.8-10 (trans., *Mb*, p. 61) and 22.20.

⁹⁶ Mutalammis, 5.8, 9; cf. *Wirklichkeit* *weite*, p. 170.

The extinction of the sun at its setting—and already had it fallen ill under the approaching wing of the night—

Is like the sinking of the eye behind the lid from fatigue: sleep confuses the eye before closing it altogether.

6. These two verses of Ibn ar-Rûmî's are symptomatic not only of the development of or toward new forms but of an entirely new way of looking at the outside world. This new manner of perception is undoubtedly the most important contribution to Arabic literature of these amazingly rich and fruitful times between, say, A.D. 800 and 1000. Gradually the somewhat rigid and unimaginative realism of earlier ages had been abandoned. Already the Umayyad age had exhibited a marked predilection for the personalized response over against the exact and merely objective portrayal of nature. Nature had been about to be sentimentalized.

The Abbasside period, however, discarded the romantic attitude. Allegory and personification no longer satisfy the dominant interest. This interest more and more turns away from the individual emotional (or intellectual) reaction to environmental inspiration and becomes focused on personalized presentation instead. It would not be sufficient to say that form was more highly prized than content. Such a statement would be true to some extent, but it would miss the decisive point.

The development of nature poetry—and not only of nature poetry—started with precise description guided by the will to do full justice to the object but slowly shifted to the stress being laid not on the actually perceptible qualities of the object but on the interpretation given the visible theme by the poet. The

poet came to conceive of his task as the presentation of the reflection left by the object on his own mind rather than of the object itself. In this sense, Abbasside poetry is very modern indeed. However, it parts company with occidental poetry when it endeavors to transpose the objects described into the sphere of another, an utterly fantastic reality.

Fantastic, I wish to call it, because on that level the poet no longer cares to bring his object closer to the listener or to endear it to him by pointing either to its actual beauty or to its emotional values but concentrates on unveiling its hidden decorative qualities which he unfolds by means of comparisons. These comparisons do not so much aim at clarifying the elements involved than at presenting startling pictures of visual splendor or acoustical charm but of little if any reality. Also, the comparisons tend to become increasingly intricate—every specification¹⁰⁵ adding optical or fantastic beauty while taking away objective truth. In this manner the importance accorded to nature and its phenomena is being diminished. The stimulating object or process dwindles to little more than an excuse for the poet to display the kaleidoscope of his imagination and his ability to interpret the data of reality in terms of a fantastic truth.¹⁰⁶

Ibn al-Mu'tazz describes the early morn: "As if, when the light of the morn urged darkness to hurry away, we would stir up a raven with white wing-tips. . . ." ¹⁰⁶ The poet first interprets the oncoming of dawn in terms of a fantastic

¹⁰⁵ The above-outlined change affects all Arabic poetry and will have to be analyzed in its wider perspective to provide a basis for the true understanding of the literary aims and attitudes of the Abbasside age. The achievement of Ibn ar-Rûmî, whose descriptions of *suhhâd* (Nos. 56, 101, 139) and the month of Ramaḍân (Nos. 98, 99, 220, 338) are truly unique in his age, may be underlined here. His discussions of himself (Nos. 110, 123, 187) are both unprecedented and unparalleled in Arabic poetry.

¹⁰⁶ *Asrâr*, p. 142 (= *Diwân*, II, 66.6). The verse is quoted by Ritter, *Nizâmî*, p. 24, n. 1.

Mu'tazz, II, 120.7-9. A great many examples, mostly dating from a later period, were collected by al-Iḥṣālî. Cf. Rat's translation, II, 514-32.

reality, then illustrates it with a comparison that introduces another object whose existence would be confined to the sphere of imagination.

Al-Buḥturī says of a warrior: "You see him in the darkness of the fight—the darkness is due to the dust obscuring the sunlight—and you imagine him to be a moon attacking the enemy with a star (i.e., the point of the lance)."¹⁰⁷ The picture of the moon attacking with a star as his weapon is meaningful only within a fantastic reality.

In the main, the poets' outlook on their subjects when proposing this fantastic interpretation is that of the jeweler or the craftsman of the so-called minor arts in general. A certain daintiness, often bordering on pettiness, is frequently noticeable. Jewels are introduced in an attempt to interpret the object or the scenery as a neatly colored, somewhat lifeless, filigree arrangement.¹⁰⁸ 'Alī b. al-Jahm says of the rose: "As if [its leaves] were rubies circled by emeralds, in the middle a sprinkling of gold."¹⁰⁹ An unnamed poet says: "We traveled through the night while the stars looked like a pearl necklace stripped of its string."¹¹⁰ Yazīd b. Mu'āwiya says: "When the admixture of water has injured the wine, you would think it stars of pearls on a sky of agate."¹¹¹

¹⁰⁷ *Asrār*, p. 173 (= *Diwān*, I, 20.16).

¹⁰⁸ Old poetry frequently refers to jewels and precious stones, mostly in the *nasīb*, but both technique and purpose of their mention are entirely different. Cf. Lichtenstädter, *op. cit.*, pp. 49–50.

¹⁰⁹ *Diwān al-ma'ānī*, II, 23.10.

¹¹⁰ *Ibid.*, I, 333.2. To realize the contrast with the old manner of perception, cf., e.g., 'Amr b. Qamī'a, *Frag.* 4, where the moon is likened to a nail paring, or Abū Du'āib, 5.40, where the sun is compared for its yellowness to a stone on which saffron has been smothered.

¹¹¹ *Escorial-Studien*, 5.4. Other examples of "jewel" illustration: Abū Nuwās (Ahlwardt), 11.8, 21.3; (Cairo) 419.14–16, 434.6–10; Abū Tammām, 48.1; remarkably beautiful is the anonymous verse, Qazwīnī, *Talḥīṣ al-miftāḥ* (2d ed.; Cairo, 1342), III, 465 (trans. A. F. Mehren, *Die Rhetorik der Araber* [Copenhagen and Vienna, 1853], p. 29). Further characteristic instances of "fantastic" description: Yazīd b. Mu'āwiya, *Escorial-Studien*, 3.1, 2; Salm al-Ḥāsir,

It is undeniable that this method of erecting a fantastic sphere above reality has inspired a great many verses of conspicuous beauty,¹¹² but it is just as undeniable that in due course of time, and perhaps mostly after our period closes, this manner of perception contributed more than anything else to removing Arabic poetry from life, from reality, and to freezing it, as it were, at a stage where the decorative had become the leading viewpoint and where variety could only be maintained by ever growing affectation and the admission into description of *recherché* witticisms. These provided the necessary element of surprise or originality to counteract the inevitable repetitiousness of the figurative scene due to the basic monotony of human imagination.

The full exploitation of the possibilities of the fantastic reality was not to be achieved by the Arabs. It is not unlikely that it was Persian influence which promoted the adoption and elaboration of the Abbasside type of imagery, but judgment will have to be postponed until a more thorough study of the Persian material will have been made.¹¹³ But even

in al-Jāhīz, *Kitāb al-ḥayawān* (Cairo, 1325/1907), III, 28 (= Nuwairi, II, 37, 'Umda, II, 63); similarly Muṭṭi', *Aḡānī*, XII, 87.9, 10, and an-Nu'mairi, *Aḡānī* (3d ed.), II, 375; furthermore, Salm, in 'Alī al-Jurjānī, *Wasāṭa* (Sidon, 1331), p. 284 (Ibn al-Mu'tazz, *Diwān al-ma'ānī*, I, 110.9, is reminiscent of this verse); Abū Tammām, 66.5, 320.8, 9; Ibn al-Mu'tazz, I, 1.12, 89.6; II, 129.3, 4; the same, in *Diwān al-ma'ānī*, II, 26.5 and 38.16; an-Nāṣī (d. 905/6), *ibid.*, I, 334.7, Ibn Ṭabāṭabā, *ibid.*, II, 339.2, an anonymous verse, *Aḡānī* (3d ed.), IX, 223, etc.

¹¹² Remarkable instances of "modern" nature description: Abū Tammām, 368.5–369.6; Ibn ar-Rūmī 5.6, 7 (waves likened to armed knights); Ibn al-Mu'tazz, II, 52.13, 105.5, 6, 105.14, 15 (sun on pond like gilded coat of arms); *Diwān al-ma'ānī*, II, 46 (not in *Diwān*). Aḥmad b. Ibrāhīm ad-Ḍabbī (d. 1009) has the setting sun turn pale because of the pain of departure (*Iršād*, I, 67¹⁸).

¹¹³ The relative advance of Arabs and Persians toward the establishment of the "fantastic" reality will best be illustrated by comparing, e.g., Imru'ul-qais, 48.72: "[It looked] as if [Mount] Tabir at [the storm's] first downpouring already was an old man

now it may be noted that already Rûdagi (d. 940/41) and Firdôsi occasionally take the decisive step of replacing simile by metaphor and metonymy, which enabled the later poets such as Nizâmî to move solely on the level of the imaginary reality without descending after each step to the objective world from which the Arab has had to rise for each individual picture with the aid of a painfully clumsy "as if" and to which he always returns for the selection of a new object to be submitted to fantastic interpretation.¹¹⁴

wrapped up in a striped cloak," with Minôçihri, ed. A. de B. Kazimirski (Paris, 1886 [quoted by Daudpota, *op. cit.*, p. 71]), p. 10: "When at early dawn the mountains lay clad in ermine for fear of cold"; or by holding the description of a sunrise by the Wazir al-Muhallabi (*Asrâr*, p. 146):

"The sun has appeared in the East without a veil (to shroud) its radiance.

[It looks] as if it were a heated crucible in which melted gold is whirling around";

against one of Firdôsi's (ed. J. A. Vullers [Leiden, 1877-84], p. 1850, vs. 776; quoted by P. Horn, *Oriental. Studien*, Th. Nöldeke zum 70. Geburtstag [Giessen, 1906], II, 1045): "In the early morn when the sun drew the dagger and the dark night became invisible from fear"; or of Nizâmî's (*Ĥosrau and Šîrîn*, in *Panča* [Bombay, 1265], p. 15^b; quoted by Ritter, *op. cit.*, p. 23): "When the sun [coming forth] from an azure fortress pitched camp upon a yellow wall [i.e., of the early light]."

The question of the origin is complicated by the fact that rudiments of this fantastic "optics" can be traced in earlier poetry. Cf., e.g., Qais, 6.4, and the verse by the same author, *Asrâr*, p. 70 (not in his *Diwân*); Labid, 17.46, 47 (storm clouds likened to Abyssinians and again to wailing women), 39.73. *Diwân* R-Rumma, ed. C. H. H. Macartney (Cambridge, 1919), 1.20, as quoted *Asrâr*, p. 138, has rather far progressed toward the "jeweler's" outlook. An excellent starting-point for the analysis of this subject provides the rich collection of pertinent verses, *Asrâr*, pp. 125-27, 136 ff., 166 ff., 224 ff., particularly as al-Jurjâni (d. 1078) was definitely conscious of the change in question. Ritter's inspiring study on Nizâmî's imagery represents the first attempt on the part of a Western scholar to analyze the poetical style of Arabs and Persians from the viewpoint of the relation of reality and imagination.

¹¹⁴ Some early tenth-century poets (besides Rûdagi) appear to be familiar with the "new" style of metaphoric description. Thus, e.g., Ĥakim Ĥabbâz of Nisâpûr, Abû 'l-Ma'al of Buĥârâ and Daqîqî (cf. their verses, collected by H. Ethé, *Morgenländische Forschungen* [Leipzig, 1875], pp. 50 [No. 11], 51, and 60, respectively). Thus it may perhaps be cautiously suggested that this type of poetical presentation and

At this point we may leave our analysis of the response to nature in Arabic poetry. What had been a live force in the tenth century was destined to lead a pale and shadowy existence in the age to come. Variation of stereotyped elements, not creation, marks Arabic literature during the dying Middle Ages. We have to wait until the very recent past before, rather timidly, a new spirit secures some hold.

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interpretation of reality was coming into fashion around A.D. 900. Some fifty years later it seems to have been generally used—in Persian language.

Pahlavi narrative as represented by the *Āyât-kar-i Zarêrdn* (trans. W. Geiger, *Sbb. Bayr. Akad. [Philos.-philol. & Histor. Kl., 1890], II, 43-84*) and the *Kârnâmak-i Artaxšêr-i Pâpakân* (trans. Th. Nöldeke, *Bezenberger's Beiträge zur Kunde d. idg. Sprachen*, IV [1878], 22-69) do not, it would seem, go beyond the (sparingly used) comparison. The passage, *Kârnâmak*, III, 10, however, probably provides one exception. I am inclined to translate this passage (ed. H. S. Nyberg, *Hilfsbuch des Pehlevi* [Uppsala, 1928-31], I, 14, of the Pahlavi text): *kā xvaršêš tēy apar āšurt*, "when the sun brought up its sword." This rendering does not square with that of Nyberg, who explains *tēy* as "Glanz, Strahlglanz, Strahlen" (*op. cit.*, II, 225). There can be no doubt, however, that the basic meaning of *tēy* is "point(ed)" from which first "sword," then "mountain peak," and, apparently still later, "ray of the sun" were developed. Nöldeke, *Kârnâmak*, p. 44, n. 5, reads *tēx*—the text has *tyh*—and translates "Spitze." Horn, *Nöldeke—Festschrift*, p. 1040, adopts the same reading and admits the possibility of translating the word by "sword." (In his *Grundriss der neupersischen Etymologie* [Strassburg, 1893], p. 92, Horn suggested the reading *tēy*.) Asadî (d. after 1066), *op. cit.*, p. 58, knows *tēy* only as "anything pointed," such as "sword" and "peak." The many instances in Firdôsi where the sun appears armed with shield, lance, sword, or dagger (cf. Horn, *Nöldeke—Festschrift*, pp. 1044-45) and also the verse of Kisâ'i (d. probably 1002) quoted by Asadî, *loc. cit.* (H. Ethé, *Lieder des Kisâ'i*, *Sbb. Bayr. Akad. [Philos.-philol. & Histor. Kl., 1874], II, 133-53*, does not have the verse):

"Secretly from behind the curtain she cast a glance toward the page—

You might say: the extreme corner of the moon strikes out of the cloud with [the point of] the sword [*tēy*]"

at least testify to the popularity of the figure in poetry. If, then, my interpretation of the *Kârnâmak* passage is correct, the growth of the "fantastic" technique of presentation must have begun (according to Nöldeke's dating of the work, *loc. cit.*, pp. 23-28) at the very latest about A.D. 600, without, however, becoming more widely employed before the Samanid period.

THE DOMESTIC ANIMALS OF ANCIENT MESOPOTAMIA
ACCORDING TO THE XIIIth TABLE OF THE SERIES HAR . r a = *hubullû**

A. LEO OPPENHEIM AND LOUIS F. HARTMAN¹

I. THE NEW TEXT: MET. MUS.

86-11-121

LOUIS F. HARTMAN

THE tablet of the Metropolitan Museum, New York, which is here published for the first time is unfortunately no longer entirely preserved. A few words are therefore necessary to explain why most of the lines of this autograph copy cannot be collated and verified.

In 1939 I copied all the cuneiform tablets of the small collection belonging to the Metropolitan Museum. Among these tablets was a rather large fragment, marked with the accession number 86-11-121, which, as could be seen from its thickness, once formed part of a much larger tablet. This fragment had already been cleaned and rebaked. Later I found in one of the storerooms of the museum many small fragments of various tablets which were almost all in an extremely poor state of preservation. None of them had ever been cleaned and rebaked. Among these new-found fragments were about half-a-dozen pieces which unquestionably belonged to the fragment 86-11-121. I joined them all together and made a

* [Recognizing the importance of this study on one of its acquisitions, the Metropolitan Museum has assisted financially in its publication. The editors of the *Journal of Near Eastern Studies* join with Assyriologists the world over in acknowledging this support.]

¹ Although both authors collaborated more or less on the entire work, Hartman assumes responsibility for the publication of the new text, while Oppenheim does the same for the reconstructed text of the entire tablet. The latter wishes to express here his thanks to Dr. F. W. Geers and Dr. Thorkild Jacobsen for the important observations and corrections they have placed at his disposition out of their vast knowledge in the special field of lexicographical cuneiform texts.

preliminary copy of the whole in so far as writing was legible beneath the lime incrustations. I then asked the one in charge of these tablets to have the whole reconstructed tablet cleaned and baked. Unfortunately, the "chemist" of the museum who undertook the task was inexperienced in this work and later reported to me that all the new fragments of this tablet were completely ruined in the process.

Therefore, the only piece of this tablet which still remains in the museum is the original fragment marked 86-11-121. This has on its obverse the first thirty lines of Column I; on its reverse, the last seventeen lines of Column VI, together with the colophon, which is written in much larger script than the rest of the tablet.

The first line of this colophon (the "catch-line" for the following tablet of the series) reads m u š *šir-ri*, "serpent." From this, as well as from the whole nature of the text, it is certain that this is the XIIIth tablet of the series HAR . r a = *hubullû*.² The rest of the colophon is of the usual type of such subscriptions, reading in translation: "Copied and collated with the original tablet; Tablet of *^mBêl-šû-nu*, son of *Iddina* of the family of *^mNa-[]-su-^dEllil*; hand(writing) of *^{md}Bêl(?)*-šum-ukîn, son of []; [place-name lost], Duṣūzu the 24th, 45th regnal year of *^{md}Nabû*-[*kudurrû-ušur*]." This date is rather startling, since we know that this

² For a summary of the contents of each of the tablets cf. L. Matouš, *Gegenstandslisten (Serie HAR . r a = hubullû)* ("Die lexikalischen Tafelserien der Babylonier und Assyrier in den Berliner Museen," Vol. I [Berlin, 1933]), pp. 3 ff., and Van der Meer in *Iraq*, VI, 144.

king's reign did not last more than forty-three years.³ A recent collation of the tablet failed to reveal whether this error is due to the original scribe or to the modern copyist, for the last line has since chipped off the tablet and been lost.

The text as here published is a faithful reproduction of the copy that was made before the added fragments were destroyed. The only corrections that were made are in the fragment which is still preserved, where the recent collation showed that these corrections were justified. The present fragment measures $13 \times 6.5 \times 3-3.5$ centimeters. The original tablet was approximately 19 centimeters high and 16 centimeters wide.

II. THE XIIIth TABLET OF THE SERIES: $\text{ĥar.ra} = \text{ĥubullû}$

A. LEO OPPENHEIM

The three Neo-Babylonian copies A, B, and C (cf. below) offered the basis for the reconstruction of the tablet. Additional information was gathered from the fragmentary copies D and F as well as from the excerpts and commentary texts E, G, H, J, and K. Finally, the readings and the sequence of entries in the pertinent Sumerian lists (the so-called "Vorläufer" of the series) offered useful assistance.

The "text-harmony" that is thus won is here given a conventional numbering of the lines. The present reconstruction contains 382 items.

TEXTS

- A Met. Mus. 86-11-121. Six columns with approximately 50 lines each.
- B Kish 1924, 786-844 (Ashmolean Museum, Oxford), published by Van der Meer in *Iraq*, VI, 144 ff., No. 76. Six columns with approximately 47 lines each.

³ Cf. R. A. Parker and W. H. Dubberstein, *Babylonian Chronology* (Chicago, 1922), p. 10.

- C SLT 44 (Babylonian Section, University Museum of the University of Pennsylvania, No. 14064), published by E. Chiera in *OIP*, Vol. XI. Four columns with approximately 47 lines each. Transliterated and translated by Ch. Jean in *RA*, XXVIII, 154 ff., and *Babyloniaca*, XIII, 1 ff.
- D Brit. Mus. 93080 in *CT*, XIV, Pl. 11. Fragment of a three-column copy. Reverse transliterated and translated by B. Meissner in *ZA*, XVII, 239 ff.
- E Brit. Mus. 81-11-3,478 in *PSBA*, XVIII, 250 ff. (Th. G. Pinches). Exercise tablet with only 8 entries.
- F VAT 10761 (Aššur) in *LTBA*, I, No. 36 (L. Matouš). Fragment.
- G Kish 73: rev 1-6 in *Iraq*, VI, 144 ff. (Van der Meer). Excerpts. Fragment.
- H K 152 + K 4204 + K 14726 (British Museum) published by Langdon in *RA*, XIV, 78 ff., and by Th. Meek in *RA*, XVII, 172. This is the IInd tablet of the commentary series $\text{ĥar.gu}_4 : \text{im-ru-û} : \text{bal-lu}$. For a duplicate cf. Meissner, *Supplement*, Pl. 17 (K 130626) covering our ll. 12, 16, 23, 43.
- J VAT 14642 (Babylon) in *LTBA*, I, No. 68 (L. Matouš). Excerpts.
- K Brit. Mus. 91010: rev 8-12 in *CT*, XIV, Pl. 13. Excerpts.⁴

The following Sumerian lists were used:⁵

Brit. Mus. 48128 in *CT*, XIV, Pl. 12

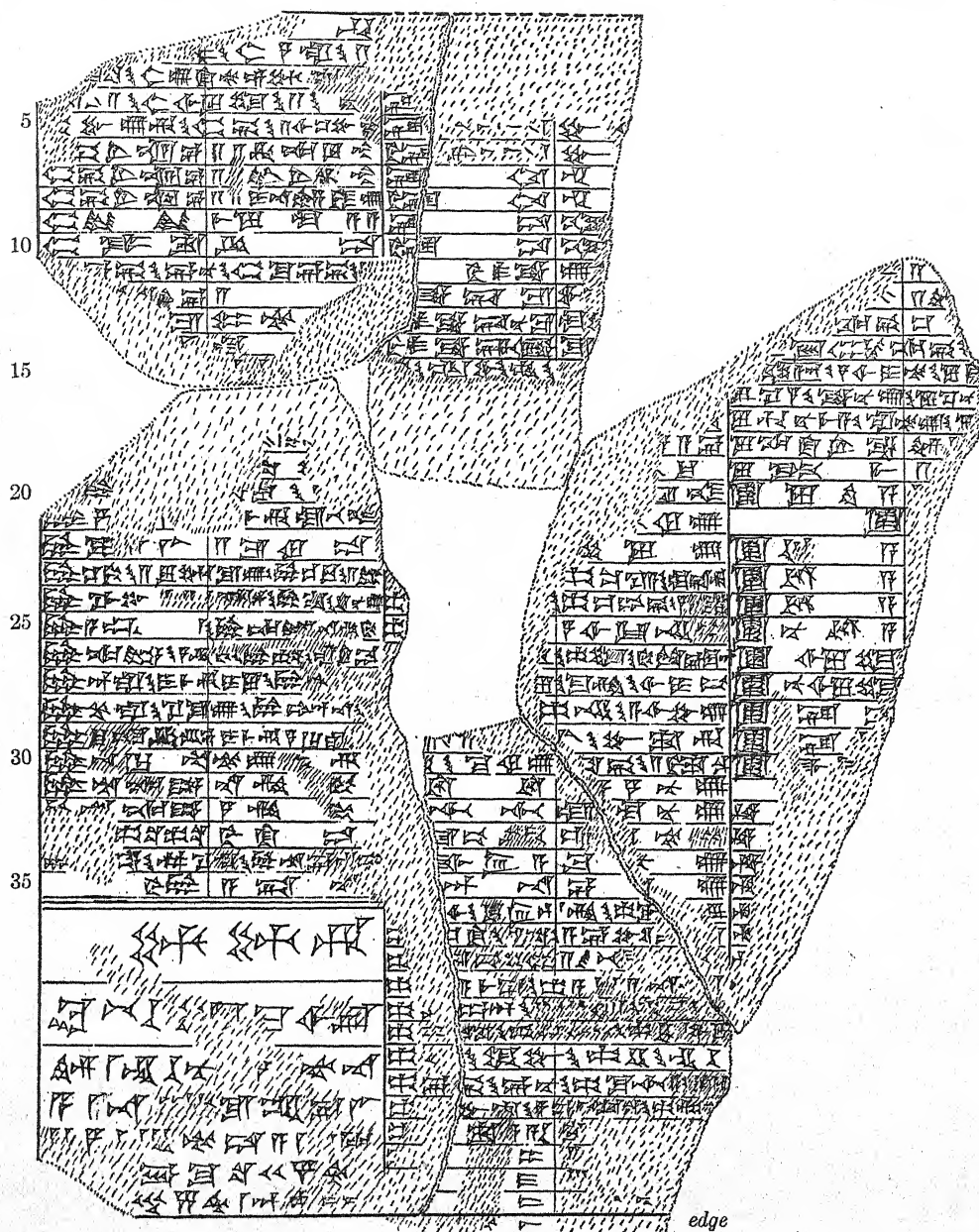
SLT 35, 37, 43, 46, 50, 51, 53, 55, 59, 61, 66, 253, 254, 255, 256.

⁴ For the reconstruction of ll. 29, 31-32, and 77-80, I could use a transcription of the tablets UM 29-16-207 and 29-16-571 (University Museum, Pennsylvania University, Philadelphia) which Dr. Geers communicated to me. He informed me also of the existence of a tablet "with equations of domestic animals" in private possession. I should like to note here that the texts from Susa (Sumerian lists, excerpts, and school texts) enumerate domestic animals in a different sequence (starting with the large cattle). These are the extant texts: Scheil, *Vocabulaire pratique*; Col. VIII:15-26 (*RA*, XVIII, 59 ff.), Scheil, *Autre vocabulaire*; Col. II:1-20, III:1-12 (*RA*, XVIII, 72 ff.), Dossin, *DP*, XVIII, No. 30, Van der Meer, *DP*, XXVII, No. 58 (II:1-14), No. 253 (II:4-10).

⁵ For l. 68 (duplicate of SLT 46) I could use the tablet UM 29-16-202 I:3 (cf. the preceding note).

COL. III

[illegible]



The marginal indications of the following list refer with capital letters to complete and with small letters to damaged passages. Omitted entries are indicated by "0." Exercise and similar texts are referred to with letters in brackets.

1	A	(E)	u d u . n i t á ⁶	<i>im-me-ri</i>
	A	(E)	u d u n i . g u . š e ⁷	II <i>ma-ru-ú</i>
	A	(E)	u d u . š e . s i g ₅	II II <i>dam-qa</i> ⁸
	A	K	u d u . g í r . g u . l a ⁹	<i>ar-ri</i>
5	A	K	u d u . g í r . a g . a ¹¹	<i>gaz-za</i>
	A	k	u d u . n i . a g . a ¹²	<i>ša ana lib-bi ip-šú</i> ¹³
	A	K	u d u . n i t a	<i>zi-ka-ru</i>
	A	K	u d u . g i š g i š . d ù . a	<i>im-me-ri ša ana ra-ka-bu</i>
	A		u d u . u ₅	<i>uš-šu-ru</i> ¹⁴
10	A	D	u d u . ú	<i>rak-ka-bu</i>
	A	D	u d u . i à	<i>im-me-ri šam-mu</i>
	A b d	(H)	u d u . s u g á s . l u m . l u m ¹⁵	II <i>šam-ni</i>
	A b d		u d u . a s _x . l u m . š e	<i>pa-ás-sil-lum</i> ¹⁶
	A b d		u d u . a s _x . l u m . š e . s i g ₅ . g a	II <i>ma-ru-ú</i>
15	A b d		u d u . a s _x . l u m . u d u . ħ ū l	II II <i>dam-qa</i> ¹⁷
	A b d	(H)	u d u . s i g ^{su} . l u . ħ u . s u d ¹⁹	II <i>gu-uk-kal-lu</i>
	A b d		u d u . s i g ^{sl} . d i . d ù ²¹	<i>šU-u</i>
	A b d		u d u . m a r . t u	<i>šU-u</i>
	A b d		u d u . U r í k i	<i>im-me-ri a-mur-ri-i</i>
20	A b d		u d u . U r í k i	<i>ú-ru-ú</i>
	A b d		u d u ū . a . a m a š ²³	<i>ak-ka-du-ú</i>
	A b d		u d u . II . a m a š	<i>pu-ḥa-lu</i>
	A b d	(H)	u d u g u . u k . k a l . u d u . ħ ū l	<i>ra-šu-bi</i> ²⁴
	A b d		u d u . g u k k a l . š e	<i>gu-uk-kal-lum</i>
25	A b d		u d u . g u k k a l . š e . s i g ₅ . g a	II <i>ma-ru-ú</i>
	A b d		u d u . g u k k a l . í b . l á	II II <i>dam-qa</i> ²⁵
	A b d		u d u . g u k k a l . t u ²⁷	<i>zib-ba-nu</i>
	a b d		[u d u .] . b i	<i>gu-uk-kal-la-nu</i>
	a b d		[u d u . k u ₅] . k u ₅ . d u ²⁹	<i>ku-[ub]-bu-lu</i> ²⁸
30	a b		[u d u .]	[]-tu ³⁰
				<i>immer mi-si-tu</i> ₄

⁶ This puzzling entry is in contrast with the equation *u d u* = *im-me-ru* offered by the colophon of the XIIth tablet of our series (cf. for reference Matouš, *LTGA*, I, 3). Dr. Geers referred me for this line and the next to ll. 36-37 of lú = *amēlu*, running:

lú lu.gu.ru.us uš *ma-ru-ú*
lú ni.ga še *ma-ru-ú*

with uš to be corrected (after Landsberger) to *ku* (cf. ll. 90 ff. of our text). With regard to our l. 7, a similar correction seems indicated; the Akkadian entry, however, constitutes certainly the first line of the tablet which some ancient scribe has misunderstood on the Sumerian side.

⁷ *ni.gu* and *ni.ga* (cf. preceding note) indicate the reading of *še* (Dr. Jacobsen). The gloss is omitted in E and SLT 55 rev III:1.

⁸ E has *še.sig₅.ga* = II II *dam-q[u]*.

⁹ SLT 55 rev III:3 has *u d u . š e . g í r . g u . l a*. For this way of marking animals cf. my "M(aterial) C(ulture) of the Neo-Babylonian Period" (in MS), index, s.v. "sarāpu."

¹⁰ Cf. my MC index, s.v. "arratu" and "šimat iššiti."

¹¹ For *gír* "shears" cf. Deimel, *ŠL*, 10/2 (*mag-zazu*).

¹² Obscure equation. K has *lipiš* instead of *ni*, this is in harmony with *libbu* of the Akkadian side. *Non liquet*.

¹³ K has *ša lib-bi(?)* []-šú.

¹⁴ K has *immeru(!) ša ana ra-(ka)-bi uš-šur(!)* which indicates that *uš-šu-ru* in A belongs to the preceding line. For the meaning of *giš* cf. my "Catalogue of the Cuneiform Tablets of the Eames Baby-

1	male sheep barley-(fed) . . . -sheep fine barley-(fed) sheep sheep marked (?) with the dagger	(male) sheep <i>ditto</i> fattened <i>ditto ditto</i> fine branded ¹⁰
5	sheep shorn with the gír sheep treated with . . . male sheep sheep with (intact) sexual organ breeding sheep	shorn whose heart(?) is . . . ram sheep which is fit for breeding breeder
10	grass-(fed) sheep fat sheep a s l u -sheep barley-(fed) a s l u -sheep fine barley-(fed) a s l u -(sheep)	grass-(fed) sheep fat sheep <i>pasillû</i> -sheep <i>ditto</i> fattened <i>ditto ditto</i> fine
15	a s l u - g u k k a l -sheep s u l u h -sheep ²⁰ . . . -sheep sheep (bred in) M a r t u -country sheep (bred in) Ur	<i>ditto</i> with <i>gukallû</i> -design(?) ¹⁸ (loan-word ending in -u) (loan-word ending in -u) Amurrian sheep Ur sheep
20	sheep (bred in) Akkad sheep of the fold sheep of the fold g u k k a l -sheep barley-(fed) g u k k a l -sheep	Akkad sheep ²² ram <i>gukallû</i> -sheep <i>ditto</i> fattened <i>ditto ditto</i> fine
25	fine barley-(fed) g u k k a l -sheep g u k k a l -sheep with a belt ²⁶ sheep with g u k k a l -(design?) [] [castra]ted (?) sheep	provided with a (fat) tail provided with <i>gukallû</i> lame []
30	[]	

lonian Collection in the New York Public Library" (hereafter cited as "Eames Coll.") (in MS), index, s.v.

¹⁵ D has [u d u . s u g á s] . l a . l u m . This corroborates Landsberger's interpretation in *AfO*, X, 152 and n. 56. *sug* should therefore be read *a s_x*. For *a s l u* and *pasillû* sheep cf. my MC index, s.v.

¹⁶ B shows [] -l[a].

¹⁷ B has [*dam-q*]u.

¹⁸ For this interpretation of *gukallû* cf. my MC index, s.v., and l. 296 of the present text.

¹⁹ D has u d u s u l u s u g b u . [] = *su-lum-hu-[u]*. *Sig* stands here most probably for *síg*, "wool"; *síg* . . . *sud* refers therefore to the shaggy, long-haired fleece of the *sulumhû*-sheep (cf. also Deimel, *SL*, 536/292: *tûg.síg.sud* = *sulumhû*, "garment, made of shaggy wool").

²⁰ For the *sulumhû*-sheep cf. also my MC index, s.v.

²¹ D has [u d u : s i g (?)] s u . d u . d û . Meaning?

²² For Neo-Babylonian references concerning Akkad sheep cf. my MC index, s.v., while Ur III references for *martu* -cattle are listed in "Eames Coll." index, s.v.

²³ This spelling opposes Landsberger's proposed restoration of *û . a* to [*u-tu*]-*û-a* (*AfO*, X, 154, n. 65).

²⁴ A seems to offer *ra-ki(?)*-*bi*, which gives the meaning "breeder" (cf. l. 9: *rakkabu*) and fits very well to the preceding equation; the other texts, however, do not support this reading.

²⁵ B and D have *dam-q*[u].

²⁶ This refers to some beltlike device (also used in the Orient of today) supporting the heavy tail of these animals.

²⁷ If *tu* stands for *tu₂*, this entry should be translated by "sheep having *gukkal*-(design?)." Cf. also l. 296 of this text.

²⁸ D has *kub-bu-lu₄*.

²⁹ This item could refer to castrated animals; cf. Deimel, *SL*, 437/17 *a mar.ku₅.du*.

³⁰ D has [] -l[a(?)]-*tu₄*.

a b	[u d u . r i . r i] . g a ³¹	šu-UT-ru-ru ³²
a b	[u d u . n a . r] i . g a ³¹	II []
a b	[u d u .] . AŠ . AŠ	ia-a-el-nu ³³
a b	[u d u .] . k u r . r a	qu-um-ma(!)-nu
35 A b	u d u . k u r . r a	im-me-ri šá-dī-i
A b	u d u . d i n g i r . r a	II i-lu
A b	u d u . d i n g i r . i . k ú . e ³⁵	i-si-[i]n i-lu ³⁶
A b	u d u . u r . m a ḥ . i . k ú . e	II nī-e-šú
A b	u d u . u r . b a r . i . k ú . e	II bar-ba-ri
40 a b	u d u . s i l a ₄ . u r . m a ḥ	su-lī-e ³⁷ nī-e-šú
A b	u d u . s i l a ₄ . u r . b a r . r a	II bar-ba-ri
A b	u d u . < i b > . g i g ³⁹	šá qab-lu maḥ-ḥa ⁴⁰
A b (H) ⁴¹	u d u . < š à > . s u r ⁴²	šá nis-[ḥu] ⁴³
a b	[u d u . g a] g . š u b . b a ⁴⁴	šá sik-[] ⁴⁵
45 a b	[u d u . g a (!)] . š u b . b a ⁴⁴	šá ga-ra-bi
a b	[u d u . u r ₁] . š u b . b a ⁴⁴	šá ḥa-še(!)-e ⁴⁶
a b	[u d u . d u ₇] . d u ₇	du-um-[mu-qu] ⁴⁷
a b	[u d u .]	kur-kur-ra(!)-nu ⁴⁸
a b	[u d u .]	nam-[] ⁴⁹
50 a o	[u d u .]	[]
A o	u d u . s i g	u[p-p]u-lu
a o	[u d u . s i g . g a] ⁵⁰	en-šú
a o	[u d u .] . u n . z u . a	en-šu
a o	u d u . [] ⁵¹	[im-m]e-ri šá pi-i-šu me- su-ú
55 a o	u d u . [ù] r . r a	im-me-ri ú-ri-e
a o	u d u . [NÈ] . ù r . r a ⁵²	II ru-uk-bu
a o	u d u . [s a . a] d . n i m ⁵³	II sa-ma-nu
a o	u d u . [s a . a] d . n i m	II ra-pa-du
a o	u d u . [s a . a] d . g a l	II šá-áš-šá-ṭu
60 a o	u d u . [s a . a] d . g a l	II ra-pa-du
a o	u d u . [s a . a d] . g a l . d ù . a	II II ma-lu-ú
a o	u d u . [s a . a d] . g a l . t a g . g a	II II lap tu
a o	u d u . [s i . i] l . l á	II pi-ḡit(!)-t[u] ⁵⁵
a o	[u d u .]	tu-ni-qa-nu
65 a o	u d u . s i . i l	[]

³¹ Restored according to the "Vorläufer" UM 29-16-207 = 29-16-571 indicated to me by Dr. Geers.

³² Read perhaps: šu-par-ru-ru. Meaning in this equation?

³³ B has ia-lu-[] .

³⁴ For this race of sheep cf. my MC index, s.v.

³⁵ B has [u d u] . e z e n . i . k ú . e, "sheep to be eaten at the festival." The Akkadian entry requires a Sumerian text containing the versions of both A and B.

³⁶ B has i-si-n[u] .

³⁷ B has su-kil-[] .

³⁸ This type of hunting is illustrated by the seal of Dan-ni-lí (in RLV VII, Tafel 149a).

³⁹ B shows remnants of the íb omitted in A but occurring in all Sumerian lists.

⁴⁰ B has šá ga-ba-[] .

⁴¹ Somewhere between the lines 23 and 43 is to be inserted the entry u d u . u d (?) = šu-up-pu listed in the commentary series H.

⁴² A omits š à (cf. n. 39).

⁴³ For nishu, "diarrhea," Dr. Geers refers me to ZA, XLI, 223c.

⁴⁴ Originally, I restored the names of the three ailments mentioned in ll. 44-46 according to ll. 195-97 based on the text C (SLT 44 II:7-9) as: ḡi, bi, and ḡar. Dr. Geers, however, indicated to me the correct readings: gāg, gān (GĀN), and ḡar referring to CT, XIV, 31, K 4581: rev 5-7 (= 26 K 4429, 9-11) [to ḡ-b. XVII], ZA, XXVIII, 291, III:1-3 [to ḡ-b. XVI] and to LTBA, I, No. 68 col. 4-6:7. In

.....
.....	<i>ditto</i> []
.....
[sheep] of the mountain	maned (?) (sheep)
35 mountain-(grown) sheep	mountain-(grown) sheep ³⁴
sheep of/for the gods	<i>ditto</i> for the gods
sheep to be eaten at the festival of the gods	festival of the gods
sheep to be eaten by the lion	<i>ditto</i> of the lion
sheep to be eaten by the wolf	<i>ditto</i> of the wolf
40 lamb for the lion	thrown to the lion ³⁸
lamb for the wolf	<i>ditto</i> to the wolf
sick sheep	whose interior is upset
sheep with diarrhea	which (is sick) of diarrhea
sheep seized with a constriction	which has a plug
45 sheep seized with a cutaneous disease	which is scabby
sheep seized with a disease of the lungs	which is sick of the lungs
cleaned(?) sheep	cleaned
[]
[]
50 []	[]
late (i.e., fall-) sheep	late
[weak sheep]	weak
[]	weak
[]	sheep whose mouth was
	washed
55 sheep of the stable	sheep of the stable
sheep of the second story	<i>ditto</i> of the roof
sheep sick with <i>sad.nim</i>	<i>ditto</i> (sick with) <i>samānu</i>
sheep sick with <i>sad.nim</i>	<i>ditto</i> (sick with) <i>rapadu</i>
sheep sick with <i>sad.gal</i>	<i>ditto</i> (sick with) <i>šaššatu</i>
60 sheep sick with <i>sad.gal</i>	<i>ditto</i> (sick with) <i>rapadu</i>
sheep full of <i>sad.gal</i> ³⁴	<i>ditto ditto</i> filled
sheep stricken/covered with <i>sad.gal</i>	<i>ditto ditto</i> covered
sheep of/for the inspection	<i>ditto</i> of/for the inspection
[]
65	[]

fact, our tablet A clearly shows *GAG*; the sign *BI* of our text C has therefore to be emended in *GA*.

As to the nature of the ailments, *GAG*, "plug," clearly indicates some obstruction of the alimentary canal or the air passages (Dr. Geers), while *gan*, *gan* (in our text: *ga*) denotes a cutaneous disease (cf. Deimel, *ŠL*, 143/2 and 13).

³⁴ Most probably *ša sik-[ka-ti]*.

³⁵ A has *ha-kur-e* and B *ha-bu-e*, both should read *ha-se-e* (Deimel, *ŠL*, 401/31).

³⁷ Restoration proposed by Dr. Geers; for the Sumerian entry cf. SLT 43 II:1 = 55 II:7.

³⁸ The entries *kur-kur-[]* of B and *[]-ma(?)*-*nu* of A have been joint to *kur-kur-ra(!)*-*nu* following a suggestion of Dr. Jacobsen. The meaning of *kurkur-rānu* remains obscure (for *kurkurru* cf. Schaumberger,

3. Ergänzungsheft, p. 327, n. 1; Weidner, *A/O*, IV, 78; Landsberger, *A/O*, XII, 138, etc.).

³⁹ Only in B; the equation is broken away in A.

⁴⁰ Restored according to l. 322.

⁴¹ The damaged signs do not correspond to an expected *udu.ka.la.h.ū.da*. For the "washing of the mouth" of animals destined to be sacrificed cf., e.g., Thureau-Dangin, *Rit. acc.*, p. 12 II:8.

⁴² Restored according to SLT 46 I:24 = 43 II:4 in contrast with the expected *é.ūr.ra*.

⁴³ For the names of ailments mentioned in ll. 58-62 cf. also Deimel, *ŠL*, 104/73-74, 81, 82c.

⁴⁴ For *dū* = *malū* cf. Deimel, *ŠL*, 230/21, and l. 140 of our text.

⁴⁵ Reading of the Akkadian entry after Hartman.

a b		u d u . [si . II] . l á ⁵⁶	<i>im-me-ri šá (ana) RI-ba-ak-ti</i> ⁵⁷
a b		u d u . [KA] . síg (?) ⁵⁸	II <i>bu-qu-nu</i>
a b		u d u . [KA] . síg . k u r . r a ⁵⁹	II II <i>šá-di-i</i>
a b		u d u . [KA . sí] g . m a r . t u ⁶⁰	II II <i>a-mur-ri-i</i>
70 a b		u d u . [m á š] . š u . g i ₂₂ . g i ₂₂	II <i>ba-ri-i</i>
a b		[u d u . [m á š] . d a . r i	II <i>ir-bi</i> ⁶¹
o b		[u d u .] . d a	II II
a B		u d u . n a m . e n . n a ⁶²	<i>ha-nu-ú</i>
a b d		u d u . n a m . e n . n a . a g . a	<i>bit-ru-ú</i>
75 a B d		u d u . n a m . e n . n a . [a g . a]	<i>šap-šu</i>
a b d		u d u . n a m . e r í m . m a	<i>im-me-ri ma-mit</i> ⁶³
a b d		u d u . n a m . [r a . a g]	II <i>šil-la-tu</i> ⁶⁴
a b D (E)		u d u . b a r . g a l (!) . l u m	<i>šum</i> ⁶⁵
a b o (E)		u d u . b a r . S A L . l u m	<i>šum</i> ⁶⁵
80 a b o		u d u . b a r . [s ù . g a] ⁶⁶	II <i>bu-qu-nu</i>
a b o		[u d u .]	<i>du-ut-ru-ú</i>
a o o		[u d u .]	[]
a o o		[u d u .]	[]
a b d		u d u . g a b	<i>im-me-ri ir-tu</i> ₄
85 a b D		u d u . g a b . r i . a ⁶⁷	II <i>mi-iš-ri</i> ⁶⁸
a b d		u d u . n i ⁿⁱ . [z u . a] ⁶⁹	II <i>šur-qu</i>
a b		u d u . z í z . a ₄	II <i>kiš-šá-tu</i> ₄ ⁷⁰
a b		u d u . l a ₅ . a . [] ⁷¹	[]
a b		u d u . l á u g ₆ ⁷²	<i>pag-[ru]</i>
90 a b		u d u . g u . r u . u š . t u m k u ₇ ⁷³	<i>šu-u</i>
a b		u d u . II . k u ₇	<i>ma-[ru-ú]</i>
a b		u d u . é . II . k u ₇	<i>bi-it-[]</i> ⁷⁴
a b F		u d u . g i š g i s s u	<i>im-me-ri []</i>
A b F		u d u . s i l . q u m ⁷⁶	<i>šum</i>
95 A b F		u d u . t i r . z u m ⁷⁶	<i>šum</i>
A F		u d u . d i m . m a ⁷⁷	<i>tak-me-su</i> ⁷⁸
A F		u d u . t a ḫ . ḫ i . a	<i>ta-ḫu-ú</i> ⁷⁹
a F		u d u . b a b b a r	<i>pi-šu-ú</i>
a F		u d u . g e ₆	<i>šal-mu</i>

⁵⁶ Restored according to SLT 46 I:31.

⁵⁷ B omits *ana*. Neither *ribakti* nor *talbakti* give sense.

⁵⁸ B has *si.g.a* which induced me to read the corresponding sign as *a* (badly made) *sí.g*. The sign in SLT 46 I:32-34 does not look like *KA*; cf., however, Deimel, *ŠL*, 112/15, etc.

⁵⁹ B has *si.g.a.kur.ra*.

⁶⁰ SLT 46 I:34 and a University of Pennsylvania Museum duplicate (29-16-202 I:3) show *U r u . m u^{ki}* instead of *m a r . t u*.

⁶¹ A has only *ir-bi*.

⁶² Cf. for this and the following entries Landsberger, *Fauna*, p. 103 ff., and my discussion of the word *bitrú* in MC index, s.v.

⁶³ B has *immer ma-mi-tu*.

⁶⁴ B has *šal-la-tu*.

⁶⁵ Instead of the *u d u . b a r . š u . l u m* of text E, Dr. Geers advises me to read (with Pinches) *u d u . b a r . g a l . l u m* on account of *u d u . b a r . g á l . l a* in Deimel, *ŠL*, 537/78 and of the text UM 29-16-571 enumerating

u d u . b a r . g á l
u d u . b a r . s ù (= SLT 47 II:1)
u d u . b a r . s a l (= SLT 47 II:2)

The enigmatic terms *šu-ut-ri* of the Akkadian column of E have been misread by Meissner SAI 1130, 1139 to *šu-ut-ḫu*, a mistake which Deimel perpetuated in *ŠL*, 74/364. An ingenious conjecture of Landsberger (*Afo*, X, 155) gives the solution: *šu par-ri* and *šu par-rat(!)*, i.e., respectively, *bargallum* and *barsallum* with glosses of the pupil using the Neo-Babylonian terms for "lamb" and "female lamb."

⁶⁶ Restored by Dr. Geers following the text quoted in the preceding note.

.....
 plucked sheep
 plucked mountain-(bred) sheep
 plucked m a r t u sheep
 70 sheep for the oracle-priest
 sheep as an offering
 []
 fattened sheep
 fattened sheep
 75 fattened sheep
 sheep for the oath-(ceremony)
 sheep from the booty
 male-sheep
 female-sheep
 80 plucked-sheep
 []
 []
 []
 breast-sheep (?)
 85 sheep as a gift
 stolen sheep

 sheep of the butcher
 90 g u r u š -fattened sheep
 g u r u š -fattened sheep

 mutton (hung in the) shade (?)⁷⁵
 cooked mutton
 95 dried mutton

 white sheep
 black sheep

sheep for the
ditto plucked
ditto ditto mountain-(bred)
ditto ditto Amurrian
ditto for the oracle-priest
ditto as incoming tax
ditto ditto

 fattened
 stout
 sheep for the oath-ceremony
 sheep from the booty
 (loan-word ending in -lum)
 (loan-word ending in -lum)
ditto plucked

 []
 []
 breast-sheep (?)
 sheep as a gift
 stolen sheep

 []
 carcass
 (loan-word ending in -u)
 fattened

 [] mutton
 (loan-word ending in -qum)
 (loan-word ending in -sum)
 pickled(?) mutton
 roasted mutton
 white
 black

⁶⁷ A has g a b . b [a . r i (?)].

⁶⁸ The interpretation of *mihru* is to be based on the following equation.

⁶⁹ I am indebted for the reading of this line to Dr. Geers, who referred me to Deimel, *ŠL*, 399/29 = 597/71.

⁷⁰ This obscure equation recurs in the *Vocabulaire de Bruxelles* (TCL, VI, 35, II:38).

⁷¹ B has only u d u . a (correct to l a s ?). Cf. for this equation the Yale Syllabary (YOS, I, 35), l. 211 (*rib-ba-a-tu*).

⁷² For a discussion of the verb *u g e* cf. my "Eames-Coll." index, s.v.

⁷³ B has u d u g u . r u . u š . k u r (!). Cf. Landsberger, *Afo*, X, 149 (also Deimel, *ŠL*, 110/5, 211/41 b, d, and 350/51) for this name of a fattening fodder. Correct Bezold, *Gloss.* p. 102a: *guruššū* "maennlich."

⁷⁴ The reading *bi-it*-[ru-ū], "fattened," fits very well, but *bi-it* could also correspond to the é of the Sumerian column. *Non liquet*.

⁷⁵ Literally: "sheep of the shade." My interpretation follows a suggestion of Dr. Jacobsen.

⁷⁶ These two Akkadian loan-words in Sumerian recur in the XVth tablet of our series; cf. Langdon, *RA*, XXXIV, 71, 75 (= Van der Meer, *Iraq*, VI, 144; Kish No. 77 IV:8-9). Cf. also SLT 46 II:21-22 *u d u . z i . i l . q u m* and *u d u . t e . i r . z u m*. The latter I connect with *tardgu*, "to hang up (meat for drying or smoking)."

⁷⁷ So in F, the text A has: u d u . d i m . m e m a .

⁷⁸ *Takmesu* from *kamasu*, "to store, to pickle," in a semantic parallel to *nadû* attested in both nuances (cf. my MC index, s.v., and my article, *BASOR*, XCIII, 15, n. 10).

⁷⁹ This verb I discussed in *Orientalia* (N.S.), Vol. XI (not available on account of the war).

100 a	F	u du . s a ₅	sa-a-mu
a	F	u du . g ù n . n u	bu-ru-ú ⁸⁰
a	F	u du . s i g ₇ . s i g ₇	ár-qa ⁸¹
a	F	u du . š u . g i	ši-i-bi ⁸²
a	F	u du . š u . g i . n a	šU-u ⁸³
105 A	o	u du . g a l	immer ra-bu-ú
106-16		Missing	
117 o	f	[u du . g á . n a] . g i g . d u ₁₁ . g a ⁸⁴	iz(!)-[bu]
o	f	[u du . u du . g á . n a . g i g . d u g ₄] . a	uz-zu-ub-[bu]
o	f	[u du] . š á m	ša(!) ši-i-[m _i] ⁸⁵
120 o	f	[u du . g a n] b a	ša ma-[hi-ri] ⁸⁵
a b		u du . š u(?) [] ⁸⁶	[]-i-šu
o b		[u du . š u k u]	immer ku-ru-un-ma-tu ₄
a b		u du . š u k u n i . [i n . n i d N i n n i]	II nin-da-bi-e ⁸⁷
a b		u du . š u k u n i . [i n . n i d N i n n i]	II tak-li-mu ⁸⁷
125 a b		u du . u ₄ . è š . [è š]	[II] iš-še-e-šú
a b		u du . u ₄ . [s a r]	[II ar]-hu ⁸⁸
a b(?)		u du . m u . p [à , d a] ⁸⁹	[]-e
a o		u du . d i n g i r . m u . p [à . d a]	[]
a o		u du . s a g . k i . [p à . d a] ⁹⁰	[]
130 a o		u du . s i k i l . e . [] ⁹¹	[]
a o		u du . n í g . d é . a ⁹²	[]
a o		u du . n í g . m u s s a	[]
a b		u du . n í g . s u m (!) . m a	[]
a b		u du . n í g . p e š ₆ . a ⁹³	[]
135 a b		u du . n í g . m u . s i g ₅ . []	[]
a b		u du . n í g . k à t . s u k (?) ⁹⁴	[]
a b		u du . š à . g i . n a ⁹⁵	I [I .]
B		u du . š à . g i . s u k ⁹⁵	II ba-bal [hibbi(!)]
B		u du . k i . m a ḥ	II ki-ma-ḥ[u]
140 B		u du . k i . m a ḥ . d ù . a	II II ma-lu-ú
B c		u du . k i . m a ḥ . k a l a . g a	II ḥa-rib-tu ₄
B c		u du . š u	II qa-tu ₄ ⁹⁶
B c		u du . š u . i	II gal-la-bi
B c		u du . š u . [í l] . l a	II niš qa(!)-tu ₄ ⁹⁷
145 B c		u du . š u . t a g . g a	II li-pi II ⁹⁷
B C		u du . š u . s u m . m a ⁹⁸	II šu-su-me-e ⁹⁹
B C		u du . š u . s u m . m a	II nu-du-un-ni-e
B C		u du . š u . s u m . m a	II pu-qud-di-e

⁸⁰ F has *bar-ru-[mu]*.⁸¹ F has *ir-[qu]*.⁸² F has *še-e-[bu]*.⁸³ F has *šu-gi-nu*, cf. n. 149.⁸⁴ Restored following Landsberger, *Fauna*, p. 103.⁸⁵ Restoration of Dr. Geers.⁸⁶ The Sumerian entry is taken from A, the Akkadian from B; the identification is not certain, but the margin of error does not exceed one line. It is even possible that ll. 120 and 121 should be merged with u du . k i (!) . l [a m] (source A and F) instead of u du . š u (?) . [] .⁸⁷ Restored according to the series *Ana ittišu* (Landsberger, *MSL*, I), p. 73, ll. 4' and 5'.⁸⁸ Restored according to l. 354.⁸⁹ After SLT 46 II:30.⁹⁰ According to Deimel, *ŠL*, 115/267. Hartman points at the fact that the corresponding entry of the Sumerian list (SLT 46 II:31) is u du . n í g . š à , which he links to n í g . š à . a = *kat-ri-e*, "ritual offering," in Thureau-Dangin, *Ril. acc.*, p. 70:19 ff.⁹¹ Cf. the corresponding entries SLT 46 II:28-29: u du . s i k i l (!) . l a . t a (reading of Dr. Geers) and u du . s a g . n u . s i k i l .

100	brown sheep	brown
	dappled sheep	dappled
	yellow sheep	yellow
	old sheep	old
	normal sheep	(loan-word ending in -u)
105	full grown sheep	full-grown sheep
106-16	Missing.	
117	monstrous/ominous sheep	monstrous
	monstrous/ominous sheep	monstrous
	sheep of/for a sale/purchase	of/for a sale
120	sheep of a (fixed) price	of a (fixed) price
	[]	[]
	[]	sheep for board/allowance
	sheep for the nin ni-offering	ditto for the nindabû-offering
	sheep for the nin ni-offering	ditto for the taklimu-offering
125	sheep for the e.-day ceremony	ditto for the e.-day ceremony
	sheep for the new/full moon ceremony	ditto for the monthly ceremony
	sheep for the oath-ceremony	[]
	sheep for the -oath ceremony	[]
	sheep for the -oath ceremony	[]
130	sheep for the purification(?)	[]
	sheep for an offering	[]
	sheep as dowry	[]
	sheep as gift	[]
	sheep as	[]
135	sheep as	[]
	sheep as	[]
	sheep as a spontaneous offering	[]
	sheep as a spontaneous offering	ditto of a spontaneous offering
	sheep (to be offered) at the grave	ditto for the grave
140	sheep for the occupied grave	ditto for the occupied ditto
	sheep for the grave	ditto
	sheep of/for the hand	ditto of/for the hand
	sheep of/for the barber	ditto of/for the barber
	sheep for the šu.íl.la-prayer	ditto for recitations
145	sheep for the laying-on of hands	ditto for the laying-on of ditto
	sheep given as a gift	ditto as a gift
	sheep given as a gift	ditto of the dowry
	sheep given as a gift	ditto of the deposit

⁹² Cf. SLT 43 II:3 ff., also Deimel, *ŠL*, 597/214, 279 (= *biblu*).

⁹³ To be connected with the equation *pe šs* = *sakālu* (Deimel, *ŠL*, 354b/83) with regard to *sikiltu*, "Erwerbung" (Bezold, *Gloss.* p. 212b) ?

⁹⁴ A has *u du . n i g . ka . at k ā t . s [u k]*.

⁹⁵ Note the three equations of II R 39:32-34 *e/f n i g . s i . m a , š ā . g e . n a* (= *bi(1)-bil lib-bi*), and *š ā . g e . g u r e* (= *ba-bal [libbi]*) which correspond to ll. 133, 137, and 138 of our text. The *sux*

of l. 138 stands perhaps for *g u r e* (conjecture of Dr. Geers).

⁹⁶ C has *g ā -ti*.

⁹⁷ The reading *n i š q a (1) -tu* is necessitated by the wording of the Akkadian entry of the next line which presupposes by its second *ditto* sign a *qātu* in the preceding line. For *lipit qātē* denoting a religious ceremony cf., e.g., Ungnad, *Babyloniaca*, II, 261, and *OLZ*, 1906, p. 538; Jastrow, *Rel.*, II, 278; *MAOG*, X, No. 1, 21, etc.

⁹⁸ B has *š u . s u m . m u* here and in ll. 147-48.

⁹⁹ C has *š u -sum-mi-e*.

	B C	udu.zur ₇ .zur ₇	II <i>ni-gi-e</i>
150	B o	udu.zur ₇ .zur ₇	II <i>nap-ta-nu</i>
	b C	udu.a.ra.zu	II <i>tas-li-tu</i> ¹⁰⁰
	b C	udu.a.tu ₅	II <i>rim-ki</i> ¹⁰¹
	b C	udu.ki.si.ga	II <i>ki-sik-ki-e</i>
	b C	udu.ki.si.ga	II <i>ki-is-pi</i> ¹⁰³
155	C	udu.ki.šà.ha	šu-u
	C	udu.sá.du ₁₁	(no entry)
	C	udu.sub.bí	<i>ik-ri-bi</i>
	C	udu.sub.sub.bí	<i>a-ši-bi</i>
	C g	udu.šu.ùr.ra	<i>kap(?) -ru</i> ¹⁰⁵
160	C G	udu.ki.an.na ¹⁰⁶	šu-[u]
	C G	udu.ki. ^d Utu ¹⁰⁷	šu-[u]
	C G	udu.ki. ^d SIN.na	šu-[u]
	o g	[udu.ki]. ^d Iškur.ra	šu-[u]
	c	[udu].mu.un.[t] úm	(no entry)
165	b C	udu.zi.ga	(no entry)
	b o	[udu. zi.g]a	II <i>šu-</i>] ¹⁰⁸
	b C	udu.zi.ga	II <i>ti-[bu-tu]</i> ¹⁰⁹
	b C	udu.zi.ga	II <i>ni-[sih-tu]</i> ¹⁰⁹
	b c a	udu.zi.ga.dil.dili	II <i>ši-[i-tu]</i> ¹⁰⁹
170	b c a	udu.a.ga.zi	II <i>im-</i>]
	o c o	[udu.]	[]-nu-din(?)
	b a	udu.gana(m)(!?) .gig.du ₁₁ .ga ¹¹⁰	<i>iz-[bu]</i>
	b a	udu.udu.gana(m)(!?) .gig.du ₁₁ .ga	<i>uz-z[u-ub-bu]</i>
	B a	udu.šám ¹¹¹	šá <i>ši-i-mu</i>
175	b a	udu.ganba	šá <i>m[a-hi-ri]</i>
	B A	udu.si.gar ¹¹²	<i>qar-nu-ú</i>
	b a	udu.si.nu.tu ₁₂	<i>hu-[us-su-ru]</i> ¹¹³
	b A	udu.ĜU.nu.me.a	<i>ra-mu-ú</i>
	b a	udu.ĜU.nu.me.a	<i>en-[šu]</i> ¹¹⁴
180	b a	udu.KA.kiir(?) kir ¹¹⁵	<i>im-[me-ri]</i>
	b a	udu.zag.šú ¹¹⁶	II []
	b a	ganám.udu ^{bá}	[]
	b a	ganám ¹¹⁷	[]
	o a	ganám.šà.a	[]
185	o a c	ganám.šà.a	[]
	o a c	ganám.šà.a	[]
	o a c	ganám.nu.šà.a	[]

¹⁰⁰ C has *te-es-li-ti*.

¹⁰¹ C has udu.a.tu₅.a = *ri-im-ki*.

¹⁰² For the meaning of *kisikkú* cf., e.g., Deimel, *ŠL*, 461/108 a-c.

¹⁰³ C has *ki-is-pi*.

¹⁰⁴ New value.

¹⁰⁵ Cf. Deimel, *ŠL*, 364/250, šu.ùr.ùr.ra = *takpirtu*. Note that the term *kaparu* may also refer to malevolent magic activities.

¹⁰⁶ ^dUtu in G should perhaps be corrected to an.na(!). Cf., however, the next note.

¹⁰⁷ C repeats this equation: udu.ki.^dUtu = *šam-ši*.

¹⁰⁸ Dr. Geers proposes to read šu-[ru-ub-ti], which would fit perfectly to the Sumerian entry of I. 164 but is opposed by the sequence of equations in B.

¹⁰⁹ Restored according to the first tablet of our series: Thureau-Dangin, *Syria*, XII, 239, ll. 33-36.

¹¹⁰ Dr. Jacobsen proposed the offered reading; g a n a (m) is to be considered a graphic variant for the g á . n a of the corresponding entries II. 117-18.

	sheep for the offering	<i>ditto</i> of the <i>nîqu</i> -offering
150	sheep for the offering	<i>ditto</i> of the divine repast
	sheep for the prayer	<i>ditto</i> of the prayer
	sheep for the cleaning ceremony	<i>ditto</i> of the cleaning
	sheep for the offering for the dead	<i>ditto</i> for the <i>kisikkû</i> ¹⁰²
	sheep for the offering for the dead	<i>ditto</i> for the <i>kispu</i>
155	....	(loan-word ending in -u)
	sheep for the regular offering	no entry
	sheep for the <i>ikribu</i> -prayer/gift	prayer/offering
	sheep for the <i>âšipu</i> -priest ¹⁰⁴	<i>âšipu</i> -priest
	sheep for the cleaning-ceremony	cleaning
160	sheep for the altar of the heaven	(loan-word ending in -u)
	sheep for the altar of U t u	(loan word ending in -u)
	sheep for the altar of Sin	(loan word ending in -u)
	sheep for the altar of I š k u r	(loan word ending in -u)
	sheep as an incoming delivery	no entry
165	sheep as an expenditure	no entry
	[]	<i>ditto</i> []
	sheep as an expenditure	<i>ditto</i> e[xpenditure]
	sheep as an expenditure	<i>ditto</i> ex[penditure]
	sheep as a single expenditure	<i>ditto</i> ex[penditure]
170	sheep which goes first	<i>ditto</i> []
	[]	[]
	monstrous/ominous (?) sheep	monstrous
	monstrous/ominous (?) sheep	monstrous
	sheep of/for sale/purchase	of/for sale
175	sheep of a (fixed) price	of a (fixed) price.
	sheep with horns	horned
	sheep without horns	clipped]
	sheep which has no 𐎶𐎵	loosened(?)
	sheep which has no 𐎶𐎵	we[ak]
180	....	sh[eeep]
	marked sheep	<i>ditto</i> []
	sheep (lit.: ewes-and-rams)	[]
	ewe	[]
	fine (well fed) ewe	[]
185	fine (well fed) ewe	[]
	fine (well fed) ewe	[]
	ewe which is not fine (well fed)	[]

¹⁰¹ This repetition of ll. 119–20 shows that B and F belong to different groups of manuscripts. Cf. also the preceding note.

¹⁰² A has *si.gar(!)* and B *si.gâr*. Reading of Dr. Jacobsen.

¹⁰³ The verb *ḥasdru* (*ḥussuru*) appears in connection with *kaskasu* (part of the liver, cf. Klauber, *Pol. rel. Texte*, p. lv) and *šinnu* (tooth). For the latter cf. CT XII 14b:5 (*ḥi-si-rum ša šin-ni*) (Holma, *Koerperteile*, p. 23) and SLT 248 II:7–8 *sū.gul* = *ši-i[n-nu]* *ḥa-si-ir-tu*, *sū.gul.gul* = *ḥu-su-ru-um*.

¹⁰⁴ Restored according to Deimel, *ŠL*, 78/31 (Reference of Dr. Geers).

¹⁰⁵ The gloss appears only in A.

¹⁰⁶ A has *zag.me*. Dr. Geers referred me to Ur III references which show that *zag.u* and *zag.šû* have the meaning "to mark, designate by a mark." Another interpretation is offered by Deimel, *ŠL*, 332/111: *zag.x*, "tithe." Cf. also n. 129.

¹⁰⁷ A has here and in the following lines *ganām*, "ewe," while B and C show *ûz*, "she-goat," in the same entries. I adopted *ganām* accepting *ûz* in equations based solely on the text C.

	a o C	ganám.ù.tu	[]
	a o C	ganám.nu.ù.tu	[]
190	a o o f	ganám.sila ₄ .[d]u.a ¹¹⁸	ša bur-ša
	a o o f	ganám.sila ₄ .šub.ba	[i l[a] ur
	a o o f	ganám.sila ₄ .hul.[z]a	[] i []
	C	[ùz].ib.gig	no entry
	C	[ùz].šà.sur	no entry
195	C	ùz.gag.šub.ba ¹¹⁹	no entry
	C	ùz.ga.šub.ba ¹¹⁹	no entry
	C	ùz.ur ₅ .šub.ba	no entry
	C	ùz.babbār	no entry
	C	ùz.ge ₆	no entry
200	C	ùz.sa ₅	no entry
	C	ùz.gùn.a	no entry
	C	ùz.sig ₇ .sig ₇	no entry
	C	ùz.šu.gi	no entry
	C	ùz.šu.gi.na	no entry
205	o b c	ùz.[sil]a ₄ .2 ¹²⁰	ša tu-'a-m[i]
	o b c	ùz.[sil]a ₄ .3 ¹²⁰	ša [tak]-ši-i
	c	ùz.g[á].gig.du ₁₁ .ga	no entry
	c	ùz.na.gá.[gig.du ₁₁ .ga] ¹²¹	no entry
	C	ùz.šám.a(!)	no entry
210	C	ùz.ganba	no entry
	c	ùz.si.[t u ₁₂] ¹²²	no entry
	C	ùz.si.nu.t[u ₁₂]	no entry
	C	ùz.ḥu.nu.me.a	no entry
	C	ùz.ḥu.nu.me.a	no entry
215	a b C	máš	ú-[ri-šu]
	a B C	máš.gal	šum
	a B C	máš.sag.kal	a-ša-[ri-du]
	a b C	máš.zú	ka-a[z-za-zu] ¹²³
	a b C	máš.zú.ra.aḥ	ku-z[a-zu]
220	a b C	máš.sig ₇ .sig ₇ ¹²⁴	II []
	b C	máš.su ₆ .l á ¹²⁵	ú-ri-[šu]
	B C	máš.du	šU-u
	b C	má .du	li-[i-du] ¹²⁶
	b C (H)	máš.nita ¹²⁷	tá-aš-[šu]
225	b C	máš.kur.ra	ú-ri-[šu šadi]
	o C	máš.gab	no entry
	o C	má .gab.ri	no entry
	b C	máš.níg.du.a ¹²⁸	II da-[]

¹¹⁸ Restored according to SLT 46 III:6 ff. Du stands here for dū; cf. my "Eames Coll." index, s.v. "dū."

¹¹⁹ C has here g₁ instead of gag, and b₁ instead of ga. Cf. n. 44 for these corrections.

¹²⁰ B has in these two lines ùz.2/3.ta.a₄ = ša [].

¹²¹ The spelling of this and the next entry is irregular; cf. n. 110.

¹²² Perhaps ùz.si.[gar], following l. 176.

¹²³ Cf. for this equation num zū_{KA} = za-qī-ti ("Zahn/Beissfliege") of the XVth tablet (Landsberger, *Fauna*, p. 133), where ll. 315 and 318 correspond to 218-19 of our text. B has ki-[], which Dr. Geers restores to ki-[ia-zu], referring to Deimel, *ŠL*, 76/12 (correct uru to zu).

	ewe which has (already) lambd	[]
	ewe which has not (yet) lambd	[]
190	ewe big with lamb	which []
	ewe which has miscarried	[]
	ewe	[]
	sick [she-goat]	no entry
	[she-goat] sick of diarrhea	no entry
195	[she-goat] seized with a constriction	no entry
	[she-goat] seized with a cutaneous disease	no entry
	she-goat seized with a lung disease	no entry
	white she-goat	no entry
	black she-goat	no entry
200	brown she-goat	no entry
	dappled she-goat	no entry
	yellow she-goat	no entry
	old she-goat	no entry
	normal she-goat	no entry
205	she-goat giving birth to two lambs	of twins
	she-goat giving birth to three lambs	of triplets
	monstrous/ominous she-goat	no entry
	monstrous/ominous she-goat	no entry
	bought she-goat	no entry
210	she-goat of a (fixed) price	no entry
	she-goat which has horns	no entry
	she-goat which has no horns	no entry
	she-goat which has no 𒄠𒄡	no entry
	she-goat which has no 𒄠𒄡	no entry
215	goat	goat
	full grown goat	(loan-word ending in -lum)
	leading/first goat	leader
	gnawing goat	gna[wer]
	gnawing goat	gna[wer]
220	browsing(?) goat	ditto []
	bearded goat	goat []
	goat capable of begetting	(loan-word ending in -u)
	goat capable of begetting	bre[eder]
	male goat	buck
225	mountain-bred goat	[moun]tain-goat
	breast-goat (?)	no entry
	goat as a gift	no entry
	goat as a present	ditto []

¹²⁴ Landsberger's translation of the parallel passage as "gruene Fliege" is very unlikely. In "Eames Coll." I discussed the semantics of two homonymous Sumerian verbs: *sig*; cf. index, s.v.

¹²⁵ With regard to this equation I have to quote the following interesting communication by Dr. Geers and Dr. Jacobsen: "The Old-Babylonian *Vorläufer* gives in this neighborhood a *māš.za.lā*, which should therefore correspond to the *māš.su.lā* and furnishes a value *za*, *sa* for the sign *ka* + *sa*.

'beard.' Dr. Jacobsen pointed out that such a pronunciation is also attested by *Ana ittišu* VIIth tablet III:20-21 (Landsberger, *MSL*, I p. 101): *sa.te.na.bī.in.mū* = *ū-ut-ti-il-šu*, 'the beard on his cheek he caused to grow.'"

¹²⁶ Restored according to l. 260.

¹²⁷ H has *māšni.ta.ni.ta*; C has *ta-aš-[]*. For *taššū* cf. Landsberger, *A/O*, X, 159.

¹²⁸ Cf. Deimel, *ŠL*, 597/214.

	b o	[m á š]. z a g . šú ¹²⁹	ú-[ri-su]
230	b o	[m á š. s a . k é] š . d a ¹³⁰	mí-[]
	C	m á š . n í g . m u s s a	no entry
	C	m á š . n í g . [p e] š a	no entry
	c	m á š . n í g . []	no entry
	c	m á š . [] ¹³¹	no entry
235	c	m á š . s [a r(?) .]	no entry
	c	m [á š .]	no entry
	c	[m á š .]	no entry
	c	m á š . []	no entry
	c	m á š . []	no entry
240	C a	(E) sila ₄	pu- <i>ha-du</i>
	C a	(E) sila ₄ . ga	II š <i>i-zib</i>
	c	sila ₄ . ga . n a g . a	š <i>i-z-ba-[nu]</i> ¹³²
	c	sila ₄ . ga . n a g . a	II []
	c	sila ₄ . ga . n a g . a	III []
245	c	[s i] a ₄ . [m] á š	no entry
	c	[s i] a ₄ . [E] BUR ¹³³	no entry
	c	[sila ₄ . e n . t e . n a]	no entry
	c	[sila ₄ . A . LUM] ¹³⁴	no entry
249-55		Missing. ¹³⁵	
256	c a	sila ₄ . [ù z]	pu-[<i>ha-du</i>]
	c a	SAL . sila ₄ . [ù z]	pu-[<i>hat-tu</i>]
	c a	sila ₄ . n i m ¹³⁶	hu-ra-pu
	c a	SAL . sila ₄ . n i m ¹³⁶	hu-rap-tu
260	c a	sila ₄ . DU ¹³⁶	lil-li-du
	c a b	SAL . sila ₄ . DU ¹³⁶	lil-li-tu ₄
	c a b	SAL . Á Š . QAR	ú-[ni-qu]
	c o o	[SAL . Á Š . QAR]	no entry
	c o o	[SAL . Á Š . QAR]	no entry
265	c o o	[SAL . Á Š . QAR . n a m . e n . n a] ¹³⁷	ha-nu-ú
266-74		Missing.	
275	c o o	[SAL . Á Š . Q A . d a g a l(?)] ¹³⁸	e-ri-iš-ti
	c o o	[SAL . Á Š . QAR]	no entry
	c a b	[SAL . Á Š .] . QAR . u š . z u	pi-ti-tu ₄ ¹³⁹
	c a b	[SAL .] . Á Š . QAR . u š . n u . z u	la p[i-ti-tu] ¹⁴⁰
	c a b	SAL . Á Š . QAR . a m a š (l)	su-pu-ri-tu ₄
280	a b	g u ₄	al-pi ¹⁴¹
	a b	a m	ri-i-[mu]
	o o (H)	g u ₄ . á b ¹⁴²	mí-i-ru ₄
	a b (H)	g u ₄ . n i n d á ¹⁴³	bi-i-ru ₄
	o o (H)	g u ₄ .	lu-ú

¹²⁹ B has z a g . L Á ; cf. n. 116.

¹³⁰ Dr. Geers refers me to SLT 46 III:33 m á š . - s a . š i r . š i r .

¹³¹ The lacuna between II. 234 and 239 is to be filled with the entries of SLT 46 III:30 ff.

¹³² Landsberger's restoration. For the original Sumerian entries cf. II. 342-44.

¹³³ Restored following SLT 35 rev II:9 ff. (Dr. Geers). The reading EBUR in l. 246 is necessitated by the following entry, For summer and winter lambs cf. Landsberger, *AfO*, X, 157, and n. 76.

¹³⁴ For A . LUM describing plants and animals cf. my "Eames Coll." index, s.v.

¹³⁵ In C the last two entries have not entirely disappeared: []-ba-[] and []-un-[] are preserved in the Akkadian column.

	marked goat	go[at]
230	. . . . goat	[]
	goat as dowry	no entry
	goat as gift	no entry
	goat []	no entry
	goat []	no entry
235	goat []	no entry
	g[oat]	no entry
	[goat]	no entry
	goat []	no entry
	goat []	no entry
240	lamb	lamb
	suckling lamb	<i>ditto</i> milk
	milk-fed lamb	milk-drinker
	milk-fed lamb	<i>ditto</i> []
	milk-fed lamb	third time []
245	male lamb	no entry
	summer lamb	no entry
	winter lamb	no entry
	A.LUM-lamb	no entry
249-55	Missing	
256	male lamb	male lamb
	female lamb	female lamb
	early/spring lamb, male	early (lamb)
	early/spring lamb, female	early (lamb, female)
260	mature male lamb	able to breed
	mature female lamb	able to be bred
	kid	kid
	[kid]	no entry
	[kid]	no entry
265	[fattened kid]	. . . .
266-74	Missing	
275	[bred/full kid]	bred (kid)
	[kid]	no entry
	[ki]d which knows the male	opened
	[k]id which does not know the male	not opened
	kid of the fold	folded
280	ox	ox
	wild ox	wild ox
	bull	bull
	bull-calf	bull-calf
	ox	ox (literary term)

¹³⁶ C interchanges ll. 258-59 and 260-61.

¹³⁷ Restored according to l. 73.

¹³⁸ Restored according to SLT 46 IV:10.

¹³⁹ B has *pi-ti-ti*.

¹⁴⁰ B and C have *la II*.

¹⁴¹ B has *al-pa* [].

¹⁴² This line appears also in the so-called "Vocabulary Long" published by Bezold in *Festschrift Lehmann-Haupt*. Lines 13-17 of this text run:

gu ₄ .āb	<i>mi-i-[ru]</i> (cf. l. 282)
gu ₄ .ninda	<i>mi-i-[ru]</i> (cf. l. 283)
gu ₄ .giš.dū.a	<i>mi-i-[ru]</i> (cf. l. 3)
gu ₄ .giš.tag.ga	<i>mi-i-[ru]</i> (cf. l. 293)
ninda	<i>mi-i-[ru]</i>

For the term *gu₄.āb* cf. also my MC index, s.v.

¹⁴³ Cf. preceding note.

285 a o	[gu ₄ .]	[] a-lap
a o	[gu ₄ .]	[] -ku
a o	[gu ₄ .]	[] -iš-tu ₄
a o	[gu ₄ .]	[] -ru-ú
a o	[gu ₄ .]	[] -lu-ú
290 a o	[gu ₄ .]	[]
A o	gu ₄ .ud(!).dirig ¹⁴⁴	at-ta-ri
a o	gu ₄ .[]	[]
a o	gu ₄ .giš.tag.ga ¹⁴⁵	šá []
a o	gu ₄ .[]	šá ši-tu mah-[]
295 a b	[gu ₄ .].bal	[] -nu
A b	gu ₄ .TÚ ¹⁴⁶	gu-uk-kal-la-an ¹⁴⁷
a b	gu ₄ .[šà].ga ¹⁴⁸	qul-lì-zu
A b	gu ₄ .šu.gi	ši-i-bi
a b	[gu ₄ .šu].gi.na	šU ^{ku}
300 A b	gu ₄ .mah	a-lim-bu-ú ¹⁵⁰
o B	gu ₄ .alim	a-lim-bu-ú ¹⁵⁰
a B	gu ₄ .álá ¹⁵¹	pu-la-ri
a B	gu ₄ .še	ma-ru-ú
a B	gu ₄ .še.sig ₅ .ga	II damqa
305 a B	gu ₄ .šà.šà	kar-šá-nu-ú ^{151a}
a b	gu ₄ .ti.ti	ši-la-nu-ú
a b	gu ₄ .[ku]š(?) .bi.ná ¹⁵²	[] -mu-[]
a B	gu ₄ .sa ₇ .a ¹⁵³	ba-nu-ú
a B	gu ₄ .an.na	e-lu-ú
310 a B	gu ₄ .alim	ku-sa-riq-qu ¹⁵⁴
a b	gu ₄ .dumu.an.na ¹⁵⁵	a-[lu]-ú ¹⁵⁶
a B	gu ₄ .sag.ki.babbar	a-lap pu-ut-šu BA.AT ¹⁵⁷
a B	gu ₄ .kun.bigig ¹⁵⁸	šá šal-mat ¹⁵⁹
a b	[gu ₄].a ¹⁶⁰	[al]ap me-e
315 a b	gu ₄ .í[d]	II na-a-[ri]
a b	gu ₄ .[bar].mul ¹⁶¹	[]
a b	g[gu ₄ .]	[] -šu(?) -nu
a o	gu ₄ .[]	[]
a b	gu ₄ .[].sún	alap [] -la-nu
320 a B	gu ₄ .sig	up-pu-lu ¹⁶²
a B	gu ₄ .nim	har-pu
A B	gu ₄ .sig.ga	en-šu
a B	gu ₄ .kala.ga	dan-nu
a o	gu ₄ .šu.ti.a	[]
325 o B	gu ₄ .gišmar.šum	a-lap ma-a-a-al-tu ₄ ¹⁶³

¹⁴⁴ Deimel, *ŠL*, 297/85 has gu₄.ud.dirig.ga = at-ta-ri.

¹⁴⁵ Cf. my MC index, s.v. "gištaggū."

¹⁴⁶ A seems to have sar instead of tu. Perhaps to be emended: gu₄. / gukkal / .tu. Cf. n. 27.

¹⁴⁷ B has gu-uk-kal-la-nu.

¹⁴⁸ Restored according to K 11377:5 (*CT*, XIX, Pl. 4) but cf. gu₄.šà.gu₄, discussed by Meissner, *BAWb*, II, 61.

¹⁴⁹ Hence: gušuginakkū, but cf. n. 83.

¹⁵⁰ I take alimbū (reading after Landsberger, *Fauna*, p. 93, n. 1) as a learned loan-word from a Sumerian alim / alip, which itself is an Akkadian loan-word in that language ("Rückentlehnung").

¹⁵¹ SLT 46 IV:29-31 has three entries beginning with gu₄.š.[]. Connect with the musical instrument á.lā (Deimel, *ŠL*, 334/166) with regard to the well-known bull-headed harp of Ur?

^{151a} Cf. the equation alim = kar-ša-nu-ú in the Sumero-Akkado-Hittite vocabulary KBo I 52:11.

285	[]	ox []
	[]	[]
	[]	[]
	[]	[]
	[]	[]
290	[]	[]
	spare ox (for the plow)	spare (ox)
	ox []	[]
	ox for the sacrifice	for the []
	ox []	whose <i>šū</i> is []
295	[]	[]
	....	with <i>gukkallū</i> -design(?)
	oxherd	oxherd
	old ox	old
	[nor]mal ox	(loan-word ending in <i>-ku</i>) ¹⁴⁹
300	big ox	....
	wisent	....

	barley-(fed) ox	fattened
	fine barley-(fed) ox	<i>ditto</i> fine
305	well fed ox	with big belly
	ox with (protruding) ribs	with (protruding) ribs
	[]
	beautiful ox	beautiful
	heavenly ox	<i>elū</i> -demon
310	wisent	wisent
	ox coming from heaven	<i>alū</i> -demon
	ox with white front	ox whose front is
	ox with black tail	which is black
	water ox	water ox
315	river ox	river ox
	[]
	ox []	[]
	ox []	[]
	ox []	ox []
320	late/fall ox	late (ox)
	early/spring ox	early (ox)
	weak ox	weak
	strong ox	strong
	ox received as a loan	[]
325	ox for the maršum	ox for the <i>majaltu</i> -wagon (?)

¹⁵² B has only *gu₄.nā*.¹⁵³ A has *[gu₄.s]ig^{sa(!)}.a*.¹⁵⁴ A has *ki-sa-r[i]-gi*.¹⁵⁵ A has *gu₄.gal = []-ū*; B, *gu₄.dumu.-an.na = a-[]*. Correct *gal* into *dumu*?¹⁵⁶ Cf. Deimel, *ŠL*, 297/20: *gu₄.an.na = a-lu-ū*.¹⁵⁷ So according to B.¹⁵⁸ Reading of Dr. Geers.¹⁵⁹ A has *zib-bat-s[u gal-mat]*, "his tail [is black]."¹⁶⁰ Dr. Geers restored this and the next line.¹⁶¹ Cf. *āb.bār.mul* in the "Vorläufer" *SLT* 59:6. The Akkadian entry Deimel, *SL*, 74/264 does not fit in here.¹⁶² A seems to have *[]-pi-lu*.¹⁶³ For *majaltu* as part of a wagon Dr. Jacobsen refers me to H.-b. Vth tablet 1.60 ff. (Meissner, *AOTU*, I, 22, ll. 80 ff., p. 32).

	a B	gu ₄ .gišmar.gíd.da	II e-ri-gum ¹⁶⁴
	a b	gu ₄ .zi.in.gi	II ku-ú-[]
	a b	gu ₄ .da.a.a.šú	da-[]
	a b	gu ₄ .mu.4	[]
330	a b	gu ₄ .[mu].3	[]
	a	[gu ₄ .mu].2	[]
	a	[gu ₄ .mu].1	[]
	a (H)	áb	ar- <i>hu</i>
	a(?) (H)	áb.šilam	lit-tu ₄
335	a	áb.gar.ra	II [] ¹⁶⁵
	a	[áb.]	[]
	a	áb.ú.ki.mu.un.muš	[]
	a	[áb.]	[]
	a	áb.ù(!).tu	II []
340	A (E)	amar	bu-ú-ri
	A (e)	amar.ga	II ši-iz-bu [] ¹⁶⁶
	a	[amar].ga.ì.kú.e	II II ik-ka-lu(!) ¹⁶⁶
	A	amar.ga.ì.nag.e	II II in-ni-qa(!) ¹⁶⁶
	A	amar.ga.ì.KA+UD.e ¹⁶⁷	II II i-na-aš-šu-ú
345	A	amar.sùh.sùh	me-lu-la-a-a ¹⁶⁸
	A	amar.bàn.da	iq-du
	a	[amar.ka]la.ga	dan-nu
	a	amar.šū.kala.ga ¹⁶⁹	[]
	a	[amar.]kala	II []
350	a	[amar.zu].zu ¹⁷⁰	lum-mu-[du]
	a	[amar.]	[]
	b (J)	amar.u ₄ .èš.èš	bu-ur eš-še-c-šú
	b (J)	amar.u ₄ .sar	II ár- <i>hu</i>
	B (J)	anše	i-me-ri
355	B (J) (H)	anšedu.ús.salibir	a-ga-lu
	o d	[d]ùr.tù[r]	[]
	B (J) d	anšegi.gašú.MUL ¹⁷²	pa-ru-ú
	B D	anše.nun.na	da-am-da-(am)-mu
	B D	anše.gir.nun.na	ku-da(n)-nu
360	a B D	anše.nígl.lá	i-me-ri ši-mit-tu ₄ ¹⁷³
	a B d	anše.bár.lá ¹⁷⁴	II su-ru-du ¹⁷⁵
	AB D	anše.gišgu.za	II ku-us-su-ú ¹⁷⁶
	a B D	anše.gišgigir	II nar-kab-tu ₄ ¹⁷⁷
	a B D	anše.gišmar.gíd.da	II e-riq-qu ¹⁷⁸
365	a B D	anše.á.bal ¹⁷⁹	dī-nu-ú

¹⁶⁴ A has šá e-riq-qa.

¹⁶⁵ The Akkadian column of B is partly preserved: []-is-gum, []-tum, []-tum; these entries, however, are too fragmentary to be connected with the five lines of the Sumerian column.

¹⁶⁶ The last sign in this line looks like "búr," but its meaning remains entirely obscure.

¹⁶⁷ A has clearly KA+UD, but in SLT 37 II:2 we have [a]mar.ga.KA+UD(!).ba standing probably for amar.ga.sub.ba.

¹⁶⁸ Reading of the Sumerian entry and interpretation of the Akkadian according to Dr. Geers. Note that the IVth tablet of lú = amēlu (Meissner, *MAOG*, XIII, No. 2, 41, III:14) has sàh.sàh = raq-gi-du (cf. our l. 378).

¹⁶⁹ This line shows that šū.KALA is not always to be transcribed with liru (m) (Deimel, *ŠL*, 354/278 a, e, i).

¹⁷⁰ Restored after Deimel, *ŠL*, 56/10: gišapin.zu.zu = lum-mu-du.

	ox for the wagon	<i>ditto</i> of the wagon
	ox	<i>ditto</i> []
	ox for the threshing	[]
	ox, four years (old)	[]
330	ox, three years (old)	[]
	ox, two years (old)	[]
	ox, one year (old)	[]
	cow	cow
	. . . . -cow	cow
335	. . . . -cow	<i>ditto</i> []
	[]	[]
	[]
	[]	[]
	cow which has calved	<i>ditto</i> []
340	calf	calf (male)
	suckling calf	<i>ditto</i> [] milk
	calf which feeds milk	<i>ditto</i> which feeds <i>ditto</i>
	calf which drinks milk	<i>ditto</i> which suckles <i>ditto</i>
	calf which sips(?) milk	<i>ditto</i> which sips <i>ditto</i>
345	restive	playful (calf)
	young calf	frisky (calf)
	strong calf	strong
	strong calf	[]
	[]	<i>ditto</i> []
350	tra[ined] calf]	train[ed]
	[]	[]
	calf for the <i>eššešu</i> -day	calf for the <i>eššešu</i> -ceremony
	calf for the <i>u₄.sar</i> -day	<i>ditto</i> for the month(ly c.)
	donkey	donkey
355	saddle-donkey	racer ¹⁷¹
	male donkey of the fold	[]
	mule	mule
	mule	. . . .
	mule	mule
360	donkey for the harness	donkey for the harness
	sumpter donkey	<i>ditto</i> loaded with a pack
	saddle donkey	<i>ditto</i> with a saddle
	donkey for the chariot	<i>ditto</i> chariot
	donkey for the wagon	<i>ditto</i> wagon
365	donkey of the team	. . . .

¹⁷¹ For *agalu*, "Reitesel," cf. now G. Meier, *ZA*, XLV, 211.

¹⁷² The reading *giga* indicated by our gloss is in harmony with Deimel, *ŠL* 547/43, where a value ending in "g" is required. Dr. Geers refers me to Ebeling, *MAOG*, III, No. 3, 35, with the gloss *KUN.g a*.

¹⁷³ D has *im-mir gi-lu-ú*. Meaning?

¹⁷⁴ A has *anše.bār.[]lā* and D: [*anše.è*]*š.bār.lā*.

¹⁷⁵ Cf. for this translation G. Meier in *ZA*, XLV, 212 n.

¹⁷⁶ A has *ku(!)-us-su-ú*, B *ku-si-i*, and D *ku(!)-us-si-i*.

¹⁷⁷ A has—for lack of space—only *II nar*.

¹⁷⁸ A has *anše.mar.gíd.da* = [*II e-ri*]*q-qa*.

¹⁷⁹ A omits the sign *ba* l. B has *te-nu-ri* instead of *di-nu-ú*. For (*á*).*ba* l with the meaning *enātu*, "team," cf. Lautner, *Altbabyl. Personenmiete*, p. 90, n. 302, and p. 91 n. 304; furthermore, Deimel, *ŠL*, 334/18-19.

a o o	(H)	anše.a.ab.ba ¹⁸⁰	<i>i-bi-lu</i>
o o o	(H)	dùr.gir ₅	<i>ša-nu-ú</i>
Ab d		anše.gù.dé	<i>na-gi-gu</i>
a b d		anše.gù.dé	<i>ša-gi-gu</i>
370 a b d		anše.gu ₄ .ud ¹⁸¹	<i>ra-qi-du</i>
Ab d		anše.dingir.ra	<i>i-me-ri i-lu</i>
a b d		anše.lugal ¹⁸²	<i>II šar-ri</i>
Ab d		anše.kur.ra	<i>si-su-ú¹⁸⁴</i>
a b d		anše.edin.na	<i>pu-ri-mu</i>
375 a b d		anše.KU.KA(?) .ik.kí.d.e	<i>i-me-ri šá šap-ra pa(?) - tu-ú¹⁸⁵</i>
a b d		dùr ^{du} .ur	<i>mu-ú-ri</i>
a b		dùr.gù.dé	<i>na-gi-gu</i>
a b		dùr.gù.dé	<i>ša-gi-gu</i>
a b		[dùr].gu ₄ .ud.gu ₄ .ud	<i>raq-qi-du</i>
380 a b		[dùr.gi]r ₅ (?)	<i>ak/q-si-la¹⁸⁶</i>
a b		dùr.gá.a [maš(?)]	<i>[]-mu</i>
A		emè	<i>a-ta-n[a]</i>

GLOSSARY OF NEW, RARE, AND OTHERWISE REMARKABLE WORDS AND VALUES

I. SUMERIAN

a (gu ₄), 314	DU (má), 222s
a.ga.zi (udu), 170	DU (SAL) (sila ₄), 260s
A.LUM (sila ₄), 248	du.ús.sa, 355
á (anše), n. 179	dù, n. 54
á.bal (anše), 365	dumu.an.na (gu ₄), 311
á.lá (gu ₄), 302	dùr.tùr, 356
alim (gu ₄), 301, 310	é.guruš (udu), 92
alim or alip, n. 150	ebur (sila ₄), 246
AMÁŠ (read: ú.a), 21, 279	en.te.na (sila ₄), 247
an.na (gu ₄), 309	èš.bár.lá (anše), n. 174
as _x .lum, 12	ezen.ì.kú.e (udu), n. 35
bar.gal.lum (udu), 78	ga, 242s, 341s
bar.mul. (áb), n. 161	ga (šub.ba), 45, 196
bar.mul (gu ₄), 316	gá.amaš(?) (dùr), 381
bar.SAL.lum (udu), 79	gá.gig.du ₁₁ .ga, 207
bar.sù.ga (udu), 80	gá.na.gig.du ₁₁ .ga, 117s
bár.lá (anše), 361	gab (udu, máš), 84, 226
bár.[.].lá (anše), 174	gab.ri.a (udu.máš), 85, 227
da.a.a.šú (gu ₄), 328	gag (šub.ba), 44, 195
dagal (SAL.ÁŠ.QAR), 275	gana.gig.du ₁₁ .ga, 172s
dīm.ma (udu), 96	gar.ra (áb), 335
dingir.mu.pà.da, 128	giga, n. 172
dirig (gu ₄), 291	gír, n. 11

¹⁸⁰ Only partly written in A.

¹⁸¹ D has [gu₄].ud.gu₄.ud.

¹⁸² The Sumerian list Brit. Mus. 48128:4-6 (CT. XIV, Pl. 12) lists after anše.lugal(!) the following items: anše.eri, "donkey belonging to a slave," and anše.eri.dil.dili, "donkey belonging to a singly working slave."

donkey of the Sea-(land)	camel
(quick) foal	foal
braying donkey	brayer
braying donkey	roarer
370 hopping donkey	hopper
donkey belonging to a god	donkey of a god
donkey belonging to the king	<i>ditto</i> of the king
mountain-bred donkey ¹⁸³	horse
desert donkey	wild donkey
375 donkey whose are open(ed)(?)	donkey whose thighs are open(ed) (?)
foal	foal
braying foal	brayer
braying foal	roarer
hopping [foal]	hopper
380 [quick foal] (?)	. . . .
foal of the f[old(?)]	[]
donkey mare	mare

gír.ag.a (udu), 5
 gír.gu.la (udu), 4
 gir₅ (dùr), 367, 380
 g^{is}gissu (udu), 93
 giš, n. 14
 giš.dù.a (gu₄), n. 142
 giš.tag.ga (gu₄), n. 142, 293
 giš.dù.a (udu), 8
 gù.dé (anše), 368s
 gù.dé (dùr), 377s
 gu₄.gal, n. 155
 gu₄.šà.ga, 297
 gu₄.ud (anše), 370
 gu₄.ud.gu₄.ud (dùr), 379
 gukkal, 23, 296(!)
 guruš (udu), 90
 guruš (lú), n. 6
 ĤAR; cf. u₅
 ĥáš, n. 185
 ĤU, 178s, 213s
 ĤUL.za (ganam), 192
 íb.lá (gukkal), 26
 íd (gu₄), 315
 KA.síg (udu), 67s

KA+UD (ga), 344
 KA+UD.ba, n. 167
 kala(g) (ki.mah), 141
 ki.maĥ.kala.ga, 141
 ki.sì.ga (udu), 153s
 ki.šà.ĥa (udu), 155
 kí.d, n. 185
 kir (udu), 180
 kú (ga), 342
 ku₅.ku₅.da (udu), 29
 KUN.ga, n. 172
 kuš.bi.ná (gu₄), 307
 la₅.a (udu), 88
 lú.guruš, n. 6
 lú.niga, n. 6
 lipiš, n. 12
 maĥ (gu₄), 300
 MUŠ; cf. ù.ki....
 mu.pà.da (udu), 127
 na.gá.gig.du₁₁.ga, 208
 na.ri.ga (udu), 32
 ná (gu₄), n. 152
 nag (ga), 242s, 343
 nam.en.na, 73s, 265

¹⁸³ This was most probably the meaning of this entry in the original Sumerian list.

¹⁸⁴ B has *si-si-i*.

¹⁸⁵ In this difficult equation Dr. Geers proposes to connect *ik.kid.e* with *pa(?)tu-ú*, and to read the third (Sumerian) sign as *ĥáš*, "thigh." A has clearly *ur-ra* instead of *šap-ra*.

¹⁸⁶ B has only []-ú.

né.ùr.ra (udu), 56
 ní.ag.a (udu), 6
 ní.zu.a (udu), 86
 níg.du.a (udu), 228
 níg.kàt.suk (udu), 137
 níg.mu.sig₅.[], 135
 níg.peš₆.a (udu), 134
 níg.šà.a, n. 90
 niga/u, n. 7
 niga (lú), n. 6
 nigu (udu), 2
 peš₆, n. 91
 ri.ri.ga (udu), 31
 sa (cf. also za), n. 125
 sa.kéš.da (máš), 230
 sa.šir.šir (máš), n. 130
 sa₇ (gu₄), 308
 sad.gal, 59s
 sad.nim, 57s
 sag.ki.pà.da (udu), 129
 sag.nu.sikil (udu), n. 91
 si.gar, 176, 211(?)
 si.il (udu), 65
 si.il.lá (udu), 63, 66
 sig.sud, n. 19
 sig₇.sig₇ (máš), 270
 sikil.e.[] (udu), 130
 sikil.la.ta (udu), n. 91
 síl.qum (udu), 94
 sú.gul.(gul), n. 111
 su₆.lá (máš), 221
 sub.bi (udu), 157
 sub.sub.bí (udu), 158
 sudu (udu), n. 21
 sug = as_x, n. 15
 sùh.sùh (amar), 345

suluḫu (udu), 16
 šà.a (ganam), 184s
 šà.ga (gu₄), 297
 šà.gi.gur₆, n. 95
 šà.gi.na, n. 95
 šà.gi.suk, 138
 šà.sur, 43, 194
 šà.šà (gu₄), 305
 šilam (áb), 334
 šu.gi.na, 104, 204, 299
 šu.kala.ga (amar), 358
 šu.tag.ga (udu), 145
 šu.ùr.ra (udu), 159
 šub, 44s, 195s
 šub (ganam.sila₄), 191
 tag, 62
 taḫ.ḫi.a (udu), 97
 ti.ti (gu₄), 306
 tir.zum (udu), 95
 tu, 27, 296
 ú.a (udu), 21
 ú.ki.mu.un.muš/zir, 337
 u₅ (udu), 9
 ud (udu), n. 41
 u₄ge (udu), 89
 ur₅.šub.ba, 46, 197
 Uru.mu^{ki} (udu), n. 60
 za (cf. also sa), n. 125
 zag.šú, 187, 229
 zag.ū, n. 116
 zag.x, n. 116
 zi.in.gi (gu₄), 327
 zir; cf. sub muš,
 zíz.a₄ (udu), 87
 zu.zu (amar), 350

II. AKKADIAN

ia-a-el-nu, 33
 ia-lu-[], n. 33
 ibilu, 366
 babal libbi, 138
 bibil libbi, n. 95
 agálu, 355
 izbu, 117, 172
 uzzubu, 118, 173
 ak/q-si-la, 380
 akálu (šizbu), 342
 alú, 311
 elá, 309

liliḫu, 223, 260
 liliḫtu, 261
 mēlulajā, 345
 alimbā, 300s
 enītu, n. 179
 enēqu, 343
 iqdu, 346
 aq/k-si-la, 380
 Urá, 19
 irtu, 84
 arḫu, 333
 erīštu, 275

arru, 4
 uššuru, 8, n. 14
 attāru, 291
 bīru, 283
 būru, 340
 buqqunu, 67, 80
 bitrá, 74, 92(?)
 bargallām, 78, n. 65
 burrá (=burrumu), 101
 barsallām, 79, n. 65
 magzazu, n. 11
 gukkallá(m), 15, 23

- gukkallānu*, 27, 296
garabu, 45
guruššū, 90, n. 73
gištaggū, n. 145
da[īāšu], 328
damdām(m)ū, 358
dinū, 365
dutrū, 81
zibbānu, 26
hanū, 73, 265
hisirum, n. 113
hussuru, 177
hasirtu, n. 113
harib/ptu, 141
hurapu, 258
huraptu, 259
hašū, 46
kubbulu, 28
kudannu, 359
kizzu, n. 123
kuzazu, 219
kazzāzu, 218
kamāsu, n. 77
takmesu, 96
kisikkū, 153
kusariqqū, 310
kapru, 159
takpirtu, n. 105
kurkurrānu, 48
karšānu, 305, n. 151^a
kišahhū, 155
kiššatu, 87
katrū, n. 90
lummudu, 350
- lipit qātē*, n. 92
mū (alap mē), 314
māru, n. 142, 282
maḥḥu, 42
miḥru, 85
misitu, 30
mašgallūm, 216
ismajaltu, 325
nāgigu, 368, 377
nadū, n. 77
nišḥu, 43
našū (šizbu), 344
niš qātē, 144, n. 97
šisu, 373
sakālu, n. 93
sidū(?), 17
sikkatu, 44
sikiltu, n. 93
silgum, 94
sulē (nēši or barbari), 40s
sulu(m)hū, 16, nn. 19 and 20
samānu, 57
supuritu, 279
surudu, 361
pū (mesū), 54
puṭaru, 302
pasillā, 12
parū, 357
šuparruru, 31
parru, parratu, n. 65
patū, 375
šilū, n. 173
šillānu, 306
šimittu, 360
- šuppu*, n. 41
qullizu, 297
qummānu, 34
qarnū, 176
ribbātu, n. 71
ribaktu(cf. talbaktu), 66
rakābu, n. 14
rukbu, 56
rakkābu, 9
ramū, 178
rapadu, 58, 60
rāqidu, 370, 379
ra-šu-bi, 22
šāgigu, 369, 378
šuginū, 104, n. 83
šuginakkū, 299, n. 149
šizbānu, 242
šitu, 294
šamnu, 11
šanū, 367
šusummū, 146
šapšu, 75
šapru, 375
šaššatu, 59
** šuthu*, n. 65
taḥū, 97
takšū, 204
talbaktu(cf. ribaktu), 66
tuniqānu, 64
tenuru, n. 179
tarāšu, n. 76
taššū, 224
tiršum, 95

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THE SONGS OF THE HARPERS¹

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I. THE DISCUSSION OF HARPERS' SONGS SINCE THEIR DISCOVERY

ON THE north wall of the passage leading from the outer hall of his tomb (No. 50 at Thebes) into the inner shrine the priest Neferhotep is shown seated at a table piled high with food offerings. His wife sits at his side, and in front of him squats a harper (now destroyed). The words which he sings to the accompaniment of his harp are engraved above the group (Pl. VII). The first part of the song, which contains its chief burden, runs as follows:

How reposed is this righteous lord!
The kindly fate has come to pass.
Bodies pass away since the time of the god,
New generations come in their place.
Re shows himself at dawn,
Atum goes to rest in the Western Mountain.
Men beget,
Women conceive,
Every nostril breathes the air,
Dawn comes and their children have gone to
their tombs.
Make holiday, O priest!
Put incense and fine oil together to thy nostrils
And garlands of lotus and *rrmt*-flowers upon
thy breast;
While thy sister whom thou lovest sits at thy
side.
Put song and music before thee,
Cast all evil behind thee;

¹ I acknowledge in profound gratitude the many valuable suggestions and critical observations made by Professors John A. Wilson, Henri Frankfort, and Keith C. Seele. I am especially indebted to Professor Seele, who has generously placed at my disposal his hand copies and photographs of the two hitherto unpublished harpers' songs from the Theban tombs of Paser and Play and additional hand copies and photographs of several of the other harpers' texts.

Bethink thee of joys
Till that day has come of landing
At the land that loveth silence
<Where> the heart of the son-whom-he-loves
does not weary.
Make holiday, Neferhotep the justified!
Thou good priest pure of hands.
I have heard all that happened to the ———,
Their buildings have crumbled,
Their dwellings are no more;
They are as if they had not come into being
Since the time of the god.

It was this song which, having been published by Dümichen² in 1869, received, in 1873, its first translation and commentary at the hands of Stern³ and, together with the "Antef" song published in the following year,⁴ formed the basis for all subsequent discussion of "The Harper's Song." According to Stern, the harper sang at a mortuary feast celebrated in the tomb in honor of the deceased. His song urged the survivors to enjoy life while it lasts. And it is such a mortuary feast which Herodotus had in mind when he wrote that in their festival gatherings the Egyptians passed a wooden image of a dead man around in a coffin and exhorted each other to drink and make merry.⁵

These views of Stern are important as a statement of the problems, not as their solution. All his conclusions need to be revised, but they aptly indicate the questions which the song raises and which can be stated as follows: (1) What is the nature and purpose of the song? (2) At what occasion or occasions was it performed?

² *Historische Inschriften altägyptischer Denkmäler*, II, 40.

³ *ZÄS*, XI (1873), 58–63 and 72–73.

⁴ *TSBA*, III (1874), 380–81 and 385–87.

⁵ Herodotus II. 78.

At the time of Stern's writing the Egyptian literary and archeological material which has a bearing on the problems of harpers' songs was not sufficiently known. Hence too much weight was accorded to the observations of the Greek writers led by Herodotus. Ever since Stern, the "banquet" of Herodotus has loomed large in the discussion, although the Greek writer had made no mention of harpers and although we have no Egyptian evidence to bear out his description of Egyptian banqueting custom. Thus the application of this Herodotus passage has prejudiced the inquiry into the nature of the feasts at which the harpers' songs were supposedly performed—an inquiry which can have results only if based on Egyptian, not on Greek, sources.

Goodwin in his publication of the Antef song⁶ also referred to Herodotus but differed from Stern in believing that the feast in question is the worldly, not the funerary, banquet. According to him, the theme of the song "is the words which Herodotus tells us were pronounced at feasts when a mummied image was carried round and presented to each of the guests." He further remarks that the song is "one of those solemn and lugubrious compositions by which the Egyptians in the midst of their feasts were reminded of the shortness of human joys." With this shifting of the scene from the tomb to the banquet hall, the character of the song appears in a different light: What for Stern was merriment in the midst of gloom is for Goodwin a solemn note introduced at a merry occasion.⁷

With Maspero's new edition of the

Antef and Neferhotep songs,⁸ which included two additional harpers' texts from Neferhotep's tomb, which, though published,⁹ had remained untranslated, the pendulum swings back from the worldly banquet of Goodwin to the funerary banquet of Stern. In addition, Maspero is the first to acknowledge the existence of a problem in the fact that the "make-merry" advice of the Neferhotep song is addressed not to the guests attending the funerary feast but to the deceased himself. This difficulty, however, he quickly resolves by telling us that the Egyptian dead were not dead in our sense of the word.¹⁰ Maspero believed that the harpers' songs were sung in the tomb at funerary feasts over which the deceased were felt to preside, that the songs contain a *carpe diem* message which is addressed to all attendants of the banquet, the living and the dead, and that this message originated in worldly feast songs as part of a custom intended as a reminder of death. Again the argument is clinched by the Herodotus passage.

Maspero's ideas were adopted by Bénédict, who re-edited the three Neferhotep texts in his publication of the whole tomb.¹¹ He, too, affirms that the harpers' songs were sung at mortuary feasts in the tombs, having been adapted from worldly drinking songs whence they derive their praise of life, which, though originally conceived as advice to the living, is not out of place in the funerary context, since, in the Egyptian mind, there is no sharp distinction between life and death. Hence these songs are well within the boundaries of Egyptian religion.

Similar opinions were voiced by

⁶ See n. 4 above.

⁷ The objection might be raised that the Antef song which Goodwin deals with is different in spirit from Stern's Neferhotep text. This difference, however, was not taken into account by the early commentators.

⁸ *Etudes égyptiennes*, I (1886), 162 ff.

⁹ Dümichen, *Hist. Inscr.*, II, 40a.

¹⁰ *Etudes égyptiennes*, I (1886), 171.

¹¹ *Mémoires de la Mission Française*, V, 489-540.

Brugsch¹² and by Wiedemann,¹³ both making light of the incongruity of recording *carpe diem* songs in the tombs.

The anticlimax to these harmonizing interpretations is provided by Max Müller's comments to his edition of harpers' songs (Antef and Neferhotep I),¹⁴ where, with more erudition than sympathy, he dwells on what he considers their brazenly heretical character, their closeness to Epicurean songs from all over the world, and the illogicality and superficiality of the Egyptian mind as apparent in the use of such songs for funerary purposes. Thus Müller inaugurated the view that the Antef and Neferhotep songs are distinctly heretical and hedonistic drinking songs. He treats the two texts as being essentially one and the same song, the Neferhotep variant having been expanded by pious interpolations in order to render the heresy harmless. The original song from which they derive he equates with the "Maneros" song mentioned by Herodotus (ii. 79).

The introduction of this Herodotus passage is as unfortunate as the use made of Herodotus' banquet. For there exist various Greek explanations of the word "Maneros," none of which is borne out by Egyptian sources. According to Herodotus, "Maneros" is a song of mourning lamenting the death of the son of the first king of Egypt who bore that name. But Plutarch (*De Iside et Osiride* 17) gives three different explanations of the word, one of them being that it is an Egyptian formula of greeting uttered by drinkers at feasts. Müller's equation of the harper's song with the Maneros was foreshadowed by Lauth, who, as early as 1869 (i.e., four years before the publication of the first harper's song), claimed to have proved

that "Maneros" was the opening phrase of a banquet song urging enjoyment of the pleasures of life.¹⁵ The many scholars who have used the term "Maneros" for one or another of the harpers' songs have unsuccessfully striven to discover the Egyptian etymology of the word.¹⁶ In spite of the complete failure of these efforts, some recent commentators continue to use it.¹⁷ Toward an understanding of harpers' songs the label has contributed nothing except confusion.

The skeptic or agnostic character of the songs, which Müller was the first to emphasize, now begins to hold the attention of the commentators. Breasted attached the two songs (Antef and Neferhotep I) to a skeptic movement in the First Intermediate Period and the early Middle Kingdom. But whereas Müller regarded them as secular drinking songs, Breasted believed them to have been songs of mourning sung at funerary feasts in the tombs.¹⁸ Summarizing the content of the Antef song, he concludes that the song reveals a

scepticism which doubts *all* means, material or otherwise, for attaining felicity or even survival beyond the grave. To such doubts there is no answer; there is only a means of sweeping them temporarily aside, a means to be found in sensual gratification which drowns such

¹² *Sitzgsber. Bayer. Ak.*, 1869, pp. 163-94.

¹³ Wilkinson, *Manners and Customs of the Ancient Egyptians* (1st ed.), II, 252; Brugsch, *Die Adonissage*, p. 24; Moret, *La Mise à mort du dieu en Egypte*, p. 22; Mariette, *Le Sérapéum de Memphis*, p. 125; Müller, *Liebespoesie*, p. 37; Möller, *ZÄS*, LVI (1921), 78; Gressmann, *Tod und Auferstehung des Osiris*, p. 20. For a refutation of Möller's etymology, which had been adopted by Gressmann, see Scharff and Hengstenberg in *ZÄS*, LXXII (1937), 143.

¹⁷ Notably Kees in *Totenglauben und Jenseitsvorstellungen der alten Ägypter*, p. 451, and *ZÄS*, LXII (1927), 77. For an energetic protest against the use of the term see Rusch's article on Maneros in Pauly-Wissowa, *Real-Encyclopädie der classischen Altertumswissenschaft* (1927).

¹⁸ *Development of Religion and Thought in Ancient Egypt*, pp. 181-82; *The Dawn of Conscience*, pp. 162-63.

¹² *Die Ägyptologie*, p. 162.

¹³ *Herodots zweites Buch mit sachlichen Erläuterungen*, p. 331.

¹⁴ *Die Liebespoesie der alten Ägypter*, pp. 29-37.

doubts in forgetfulness. "Eat, drink, and be merry, for tomorrow we die."¹⁹

A hitherto neglected aspect was brought to the fore when, in 1913, Gardiner re-edited and translated the second Neferhotep song under the title "In praise of death."²⁰ It could then no longer be overlooked that this song contains no skepticism and no "make-merry" advice but that, quite on the contrary, it praises death as the blessed eternal existence. In consequence, most subsequent comments on harpers' songs tell us that there exist two types of harpers' songs, the one—skeptic-hedonistic—urging enjoyment of life, the other piously praising death. According to Erman, the pious song from the tomb of Neferhotep was intended as a protest against its impious counterpart.²¹ And for Kees the two Neferhotep songs reflect the struggle between the forces of skepticism and those of traditional faith.²²

When, in 1935, Varille published three harpers' songs of the Nineteenth Dynasty, which are wholly devoted to the praise of death, he fitted them into the schematism of the two-type theory: They represent the pious attitude which exalts the hereafter, in contrast to the pessimism of the Antef-Neferhotep class of song which urges enjoyment of life while it lasts.²³

To sum up the main viewpoints which we have encountered in our review: The songs of the harpers have been interpreted as: (1) secular drinking songs developing a "make-merry" motif combined with a reminder of death; (2) mortuary songs derived from secular drinking songs and fitted to religious belief and practice; (3) secular drinking songs of skeptic-

heretical bent; and (4) funerary laments born of skepticism. Finally, they have been divided into two classes, one skeptic, pessimistic, and primarily secular; the other pious, optimistic, and primarily funerary.

II. THE ORCHESTRA SONGS OF THE EIGHTEENTH DYNASTY AND THEIR SIGNIFICANCE AS PART OF THE DECORATED TOMB

The seemingly simple term "harper's song" for a song accompanied by the harp is ambiguous; for it neither includes, nor outrightly bars admittance to, the many little songs recorded chiefly in private tombs of the Eighteenth Dynasty which are either sung in unison by several musicians playing various instruments of which the harp is one or divided among the different musicians, each singing his part. On the whole, these little songs have been excluded from the discussion of harpers' songs and have not been looked upon as possibly having a bearing on the question of origin, purpose, and content of those songs which are recorded with the figure of a single harpist or attributed to a harpist by means of an introductory phrase and which alone have come to be known as "harpers' songs."

In this section we propose to deal with these short songs from Eighteenth Dynasty tombs, and we shall call them "orchestra songs" as distinct from "harpers' songs." We shall discuss them from two angles: (1) their literary affinities and (2) their pictorial context. When their place in the scheme of the decorated tomb has thus been outlined it will be possible to define their relation to "harpers' songs."

A scene in the hall of the tomb of Kenamun (No. 93 at Thebes; north side of west wall) shows Amenhotep II as a young prince sitting on the lap of the royal nurse Amenemopet, who is Kenamun's

¹⁹ *The Dawn of Conscience*, p. 165.

²⁰ *PSBA*, XXXV (1913), 165-70.

²¹ *The Literature of the Ancient Egyptians*, translated into English by A. M. Blackman, p. 253.

²² *ZÄS*, LXII (1927), 77; also *Totenglauben*, p. 451.

²³ *BIFAO*, XXXV (1935), 153-60. See also Weill, *Egyptian Religion*, III (1935), 127.

mun's mother.²⁴ Two officials approach him and are followed by two girls carrying wine cups and a third playing a lute. The legend above the girls reads:

Diverting the heart and seeing good things, song, dance, and music; rejoicing and gladness of heart when [the troupe of] his majesty is seen in the pleasure-ground of Peru-nufer; perfumed with myrrh, anointed with oil, making holiday (*irt hrw nfr*); decked with garlands from thy plantation, lotus at thy nostril, O king Amenhotep. Make for us an eternity of [years]. How fair is thy face in royal appearance when thou art seated on the great throne. . . . He who rejoices over Re when he sees him has life so that he does not [die].

This representation of the entertainments provided for the young prince is a purely secular scene, free from all funerary allusions. Both picture and text invoke the *hrw nfr*, the "holiday" or "feast day," with its standard paraphernalia of wine, music, flowers, and ointment. Secular as the occasion is, the gods are not forgotten, for they are the bestowers of all life and happiness.

In the following we shall study the application of that same "make-holiday" phraseology to a funerary²⁵ context, i.e., to wishes for, and descriptions of, the life after death. The setting for these texts is either the simple daily meal of the dead, the "offering-table" scene, or the more elaborate "banquet" scene, the significance of which we shall discuss later.

a) The banquet scene in the hall of the tomb of Ipuki and Nebamun (No. 181 at Thebes; west side of south wall)²⁶ shows the deceased Nebamun being presented

with drink by his wife, who says: "Take, drink, and make holiday within thy house of eternity!" Above the man's head is written:

Sitting down to divert the heart by a holiday in the interior of his house of the west, his abode of eternity, which is in the precinct of Hathor, mistress of Djesrut. May she give thee leave to come up to earth and to the open forecourt of the tomb so that thou mayest see the sun when he rises.

b) In the banquet scene from the tomb of Amenhotep-si-se (No. 75 at Thebes; main hall; west side of north wall)²⁷ the master and his wife are seated in front of the offering table with musicians and guests attending. The legend above the man's head reads:

Sitting down in the hall to divert the heart according to the practice of existence on earth, perfumed with myrrh, adorned with garlands, making [holiday] in his house of justification which he made for himself in the west of Thebes.

c) The tomb of Nebamun (No. 90 at Thebes)²⁸ contains two parallel banquet scenes on the east wall of the hall, in both of which the deceased is seated with his wife and receives the cup from a daughter. In the south scene the daughter addresses her father thus: "For thy ka! In life, in health, thou praised of Amun, in thy beautiful house of eternity, thy dwelling of everlastingness." The legend above his head in the north scene reads:

Diverting the heart and passing a happy moment in [his] beautiful [house] of eternity by the one — of favor, great in the palace; he is happier today than yesterday.

d) In one of the two banquet scenes in the tomb of Haremhab (No. 78 at Thebes; main hall)²⁹ two women present cups to

²⁴ See Davies, *The Tomb of Ken-Amun at Thebes*, Pl. IX.

²⁵ The term "funerary" as used here does not apply to every inscription or representation recorded in a tomb but only to those dealing with the burial rites or with the life after death.

²⁶ Davies, *The Tomb of Two Sculptors at Thebes*, Pls. V-VI.

²⁷ Davies, *The Tombs of Two Officials*, Pls. IV, V, XVIII.

²⁸ *Ibid.*, Pls. XX-XXIII.

²⁹ Bouriant, *Mémoires de la Mission Française*, Vol. V, Fasc. III, Pl. I.

the deceased. Behind them are three women musicians. The legend above the two serving women reads:

For thy ka! Make holiday in thy beautiful house of eternity, thy dwelling of everlastingness. Thy face is turned to ——— Re, thy lord who loves thee. . . . Receive garlands, anoint thyself with fine oil. Take part in a holiday in the favor of that good god of the west of Thebes.

e) Two parallel scenes on the north and south walls of his shrine depict the deceased User (owner of tomb No. 21 at Thebes)³⁰ seated with his wife in front of the offering table. A daughter presents the cup and says:

For thy ka! Drink, be happily drunken, and make holiday! . . . Thou shalt never cease to enjoy thyself within thy beautiful house.

These samples should suffice to make it clear that there exists a certain class of tomb texts which apply the "make-holiday" motif to the deceased's existence in the hereafter. The texts name the tomb as the place in which the dead man will enjoy the "holiday"—"house of eternity" and "house of justification" are, in this context, quite unambiguous terms for the tomb—and the feasting which is the chief content of the "holiday" is described and depicted in the manner of the feasts actually celebrated in life. Thus a secular phraseology is consciously applied to strictly funerary wishes, which conjure up the happiness of the life after death by picturing it in terms of earthly joys.

So far the "holiday" has been invoked through speeches of those participating in the feasting or through descriptive legends. It remains to be seen how the orchestra songs recorded with the banquet scenes compare with these two forms of prose.

a) In the banquet scene from the tomb of Djeserkarasonb (No. 38 at Thebes;

main hall)³¹ the master and his wife sit in front of a flower stand. Two daughters present flowers and drink. Behind them are seven women musicians and a dancing girl. The daughters express the familiar good wish: "For thy ka! Make holiday, O scribe of the grain, in thy house of justification, which thou hast made for thyself on the side of the City." As in the case of Amenhotep-si-se, the feasting in the hereafter is expressly stated to be a replica of the earthly custom; for the legend above the seated pair reads: "Sitting down in the hall to divert the heart as was his wont while being on earth." As to the song of the musicians who play harp, lute, double-flute, and lyre, it runs thus:

Holiday! One constantly recalls the beauty of [Amun]. The heart is glad and praise is given to the height of heaven unto thy exalted face. Hearts say at the sight of it: Do it, O measurer of the grain [of Amun], every day!

b) In the banquet of Rekhmire (tomb Nö. 100 at Thebes; north wall of passage)³² two orchestras, one consisting of men, the other of women, entertain the large gathering of feasters. The songs are divided among the various musicians, each singing a part. The male harper sings:

How prosperous are they, these years which the god decrees for thee! Thou passest them endued with blessing, healthy and happy. Thou existest, thy voice being justified and thine enemy fallen, in thy house united with eternity, partaking of everlastingness.

The lute player sings:

Thou hast life endued with blessing, thou hast holiday . . . making holiday, O prefect. Thy goodness is remembered. . . .

³¹ Scheil, *Mémoires de la Mission Française*, V, 571-79, Pl. II. For the texts see *BIFAO*, XXI, 128.

³² Virey, *Mémoires de la Mission Française*, Vol. V, Fasc. I, Pls. XL-XLIII; Davies, *The Tomb of Rekhmire at Thebes*, Pl. LXVI and p. 61.

³⁰ Davies, *Five Theban Tombs*, Pls. XXV-XXVI.

The three men who beat the rhythm sing:

North wind sweet to thy nostril, breath of what thy nose loveth. Partake of the offering which the king gives which has gone up on the altar of the lord of eternity, that thy ka may be satisfied by it, O prefect blessed of Amun.

c) Some painted blocks from a Saqqara tomb of the late Eighteenth Dynasty³³ show a group of four women musicians, one of them a harpist, standing behind a girl who presents drink to the deceased, who is seated beside his wife. Above the musicians is written:

Thy ka is upon thee, thou who hast spent thy lifetime in happiness, (though now) thou art consigned to the west. How prosperous are thy (things), O lord of eternity! . . . Thy house stands firm bearing thy name. The children of thy children 'carry thy bier'.³⁴

d) The arrangement of the figures in the banquet scene on Wall D of the hall in the tomb of Haremhab³⁵ is slightly different from that of the parallel scene previously described. In this scene the text does not end above the head of the second serving girl but continues above the two women lutists who stand behind them. Hence it is difficult to decide whether we are dealing with a speech or a song—or a combination of both. The text runs thus:

For thy ka! Make holiday in thy beautiful house of eternity, thy dwelling of everlastingness . . . decked with garlands, anointed with fine oil, taking part in a holiday. Thy heart is glad, thy heart is in joy. Thou seest Amun; he accords thee to be among mankind, blessed in the land of the living. Mut has come . . . in order to give 'what is asked of her' and to carry the sistrum and mix the drink in the cup of gold. . . .

³³ Quibell and Hayter, *Teti Pyramid North Side*, Pl. XV.

³⁴ For the word *šfd.t* see Davies and Gardiner, *The Tomb of Amenemhet*, p. 56, and Peet, *The Great Tomb Robberies* (Text), p. 174.

³⁵ Bouriant, *Mémoires de la Mission Française*, Vol. V, Fasc. III, Pl. II, p. 426; Wreszinski, *Atlas zur altägyptischen Kulturgeschichte*, I, 39a, c.

In the lower register a male orchestra consisting of a harpist, a lutist, and a blind singer who beats the rhythm accompany the preparation of food with their song:

Incense, fine oil, oxen, the best of what belongs to Amun, the morning of his rising when he appears in Karnak to receive the good things which are received from the hand of the blessed royal scribe every day. To thy beautiful face, lord of food! thou hast reached the land of the god.

e) At a banquet in the tomb of Amenemhet (No. 82 at Thebes; north wall of passage)³⁶ a male harper sings:

How well it goes with the temple of Amun, even she that spendeth her days in festivity with the king of the gods within her ———. She is like to a [woman] drunken, who sitteth outside the chamber, with loosened 'hair' and ——— upon her beauteous ['breast'], and she possesses ———.³⁷

f) In another banquet scene from the same tomb (hall; south side of west wall)³⁸ a male harper and two women who beat the rhythm sing:

How well it goes with the temple of [Amun] on New Year's Day, at the renewal of ——— all in its entirety, when he receives its good things, and its oxen are slaughtered by hundreds, its wild game of the mountains by thousands, even for A[mun as his due off]erings at the festivals of the seasons.

g) The song from the banquet scene on the British Museum fragment No. 37984³⁹ runs thus:

['Flowers of sweet'] odor 'given' by Ptah and planted by Geb. His beauty is in every body. Ptah has made this with his hands to entertain his heart. The canals are filled with water anew, and the earth is flooded with his love.

³⁶ Davies and Gardiner, *The Tomb of Amenemhet*, Pl. XV, p. 63.

³⁷ This is Gardiner's translation except for the initial words, for which see Gardiner, *Egyptian Grammar*, § 141, n. 6.

³⁸ Davies and Gardiner, *op. cit.*, Pl. V, pp. 40–41.

³⁹ See Wreszinski, *Atlas zur altägyptischen Kulturgeschichte*, I, 91; Davies and Gardiner, *Ancient Egyptian Paintings*, II, 70.

The comparison of these songs with the speeches and legends reveals their similarity. Sometimes it is only the position of the text in relation to the figures which marks the distinction between the song of the musician and the speech of the cupbearer. Whenever the text is not distinctly assigned to one or the other class of persons, we cannot be sure about the manner of its delivery—or rather about the intention of the decorator. We have encountered this ambiguity in the case of the banquet of Haremhab. However, a certain amount of difference between the songs and the prose texts is recognizable: The “holiday” motif, although it occurs, is not the chief subject of the songs. Instead, references to the gods and to the offering ceremonies are prominent. In other words, the orchestra songs are more ritualistic than the other banquet texts. In spite of this difference, however, it can be said in summary that all banquet texts, whether orchestra songs or speeches or descriptive legends, belong to the same basic repertoire the purpose of which is to invoke the pleasures of the “holiday” as they apply to the existence in the here-after.

The nature and significance of the banquet scenes, from which our texts derive, have been much discussed, but no unity of opinion has been reached. Gardiner has distinguished between two types of banquets, the funerary and the biographical, the former being “the depiction of the funerary rites of offering together with the banquet that they aimed at securing for the deceased,”⁴⁰ while the latter is the representation of an earthly feast and thus a scene of daily life. The difficulty of distinguishing between the two types is, according to Gardiner, due to the fact that the worldly feast had acquired a second-

ary funerary and prospective significance owing to the Egyptian’s hope that after death he would continue to enjoy earthly pleasures. This secondary significance caused the intrusion of funerary elements in the depiction of the secular biographical feast.

The fundamental distinction between these two types of banquets, the funerary and the biographical, has generally been adopted. But their respective meanings have been interpreted in various ways. An eloquent statement of one point of view, which is related to Gardiner’s, is provided by Davies’ interpretation of banquet scenes:

We may gather from the pictures and accompanying texts that bright hours spent in the midst of family and friends might be looked forward to by the happy dead. But we should be much mistaken if we supposed that it was a prospect clearly envisaged and provided for by rite, by prayer, or by magical aids, pictorial or otherwise. . . . Egyptian faith knew when to eschew system and dogma and pass to unoutlined dreams. . . . The pictures, then, that we meet with in the outer halls of tombs do not definitely represent or secure such a reunion. . . . The scenes are primarily memories of the part which the dead might enjoy beyond cavil, and hopes surpassing these are only disclosed by a phrase, an epithet, an exaggeration which, being scarcely applicable to life here, might be regarded as hyperbole or as prophecy. . . . Such scenes of feasting occur more than once in different parts of one tomb, and a distinction needs to be made between them, even when the ancients failed to observe it and added elements of confusion. Three separate classes of banquets are perhaps depicted; one is the regular meal of the dead, which he would hope to enjoy daily, but which, for the common man at least, could only be so provided pictorially or by written spell. . . . The second depiction reflects an actual presentation of food and a real assembly of living relatives on the occasion of the New Year, or some

⁴⁰ Davies and Gardiner, *The Tomb of Amenemhet*, p. 38.

other anniversary. Here, too, the food was ritually offered to the dead; not in privacy and silence, however, but in the company of friends and to music and laughter. The third kind of meal is such as we are now to consider. Placed in the chamber of records it commemorates primarily the pleasures of the past. No priest needs to intervene here. . . . The daughters of the house come forward with the cup, the garland, the ointment, the joy bringing emblems of Hathor. . . . The meat and drink are material things . . . and if they are offered to the *ka*, that *anima blandula* was a familiar spirit that began its protective or other offices with birth not death. The distinction between these occasions of feasting was, however, not observed strictly by the decorators. The actions and words proper to the one crept often into the other. The shadow of death naturally stole over the happiness of earth; on the other hand the familiar realities of the known world pleasantly tinged the monotonous expanse of eternity. With this word of warning against too rigid an interpretation of words and details, we may turn to the picture itself and enjoy its very incongruities.⁴¹

We are not in agreement with this point of view. In the first place, the banquet which Davies treats as an example of the worldly biographical type contains the explicitly funerary legends which we have discussed.⁴² Refusal to accept the literal meaning of those "holiday" wishes which place the "holiday" squarely in the hereafter could be justified only if they were isolated remarks cropping up erratically in an otherwise distinctly worldly context, but not when they are so persistently used and echoed in song and prose as to constitute a definable part of the funerary repertoire. Moreover, all the banquets from which the funerary "holiday" texts derive exhibit one or more than one funerary element of representation, usually the ritual offering table. This is

also the case in the banquet of Nebamun with which Davies deals. To quote from Davies' description: "The ridiculous truncheon which he [Nebamun] carries, against all earthly habit, gives a sepulchral heaviness little befitting the scene." Describing the relatives participating in the feast, Davies says:

In the uppermost row a young woman offers the menat and symbolical flowers to a married pair, and by this attention betrays a rank which they had probably won by age or death. . . . Both are given the epithet *makheru* commonly applied to the dead, and in agreement with this their table is of the form reserved for mortuary feasts.⁴³

Has Nebamun then invited the dead to his house?

It seems to us entirely unconvincing to assume that all these funerary texts and elements of representation are out of place and merely the outcome of confusion. In other words, we believe that a banquet which has explicitly funerary legends is a funerary banquet. When the presence or absence of such legends is made the criterion for the distinction of the funerary from the worldly biographical banquet, it becomes apparent that the overwhelming majority of banquets in tombs belongs to the funerary class. Such literal approach to the material may be rigid but is not arbitrary. It furthermore results that all texts gathered in this chapter, legends, speeches, and songs, with the exception of the legend from the "holiday" scene of Amenhotep II,⁴⁴ which was chosen as an example of a secular entertainment, derive from strictly funerary feasts. In other words, the background for the orchestra songs recorded in the private tombs of the Eighteenth Dynasty is the funerary banquet.

It remains to inquire into the meaning

⁴¹ *The Tomb of Two Sculptors at Thebes*, pp. 51-53.

⁴² See above, p. 182 (tomb of Ipuki and Nebamun).

⁴³ *The Tomb of Two Sculptors at Thebes*, p. 55.

⁴⁴ See above, p. 181 (tomb of Kenamun).

of the funerary banquet. It is commonly assumed that this banquet represents a family celebration which took place in the tomb on certain days of the year for the purpose of offering food to the deceased with which to satisfy his needs in the hereafter. However, another possibility is suggested in a recent study in which it is maintained that, besides the biographical banquet, there exist two different kinds of funerary banquet scenes, the one being the depiction of what a chapter of the Coffin Texts describes as the reunion of a man with his family in the hereafter,⁴⁵ while the other represents the constitution of the mortuary endowment.⁴⁶ Foucart's study which was to furnish the evidence for this view is not available, hence we are in no position to comment on it. But it seems desirable, pending a solution, to indicate the problems posed by the funerary banquet scenes.

Summing up, it seems to us that the orchestra songs of the Eighteenth Dynasty are part of a certain class of tomb literature which is devoted to invoking the holiday to be enjoyed in the hereafter, to praising the lasting and vigorous life which the deceased will lead in the beyond, and to extolling the gods. These songs occur in scenes of funerary feasting or with the simple daily meal of the dead. They can be found in any of the accessible parts of the tomb, the hall, the passage, or the shrine. Their peculiar character is that they are funerary without being strictly ritual and that they make use of a secular phraseology without being secular or biographical. In other words, they are not in the nature of spells, as are those

texts which deal with the burial ceremonies proper or with the deceased's journey into the beyond, nor do they represent biographical reminiscences. Their phraseology is to a large extent derived from secular speech, but their purpose is funerary throughout. This transposition of secular terms to funerary purposes is particularly clear in the case of the "holiday" motif.

Against the background of the orchestra songs we shall now view the compositions which are harpers' songs in the narrower sense, beginning with those which antedate the New Kingdom.

III. THE HARPERS' SONGS OF THE MIDDLE KINGDOM AND THE DEPICTION OF HARPERS

Old Kingdom representations of harpers are numerous, but with the exception of one Sixth Dynasty tomb at Meir⁴⁷ their songs are never recorded. The contexts in which they appear are varied and not well defined. Usually a harper and a few other musicians are tucked away in a corner among scenes of agriculture or domestic labor. Sometimes a row of dancers is depicted in the vicinity of the musicians. These scenes are not explicit. They merely indicate that the harpers were part of the nobleman's household. Women harpists appear as early as men; and playing the harp is not only a paid profession but an art with which a lady might entertain her husband.⁴⁸

In the Middle Kingdom the reliefs suggest that the function of the harpers is primarily funerary. They now appear in the funerary offering-table scene on the private mortuary stelae, and in the tombs, too, they are more closely connected with ritual scenes. This funerary function is

⁴⁵ See De Buck, *The Egyptian Coffin Texts*, II, 180 (Spell 146) and *ibid.*, II, 151 (Spell 131); also Lacau, *Textes religieux*, II and LXXII. Perhaps this is represented in the banquet of Amenemhet which depicts the dead ancestors (see Davies and Gardiner, *The Tomb of Amenemhet*, Pl. XVI).

⁴⁶ Foucart, "Le Tombeau D'Amonmos" in *Mémoires de l'Institut Français*, LVII, 225, n. 2.

⁴⁷ Blackman, *The Rock Tombs of Meir*, Vol. IV, Pls. IX-X.

⁴⁸ See *The Mastaba of Mereruka*, Vol. I, Pls. 94-95 ("O.I.P.," Vol. XXXI).

borne out by the character of the harpers' songs, for which we now have several examples.

Before discussing these texts, a word should be said about a peculiarity of representation, namely, the habit of depicting male harpers as blind. This mode of representation is fairly common in the Middle Kingdom and very widely applied in the New Kingdom. Knowledge of the social standing of harpers would help to determine the reasons behind this practice. But we have little information about the harper's profession and his standing. Max Müller has made much of the demotic satirical poem which describes him as lowly and despicable.⁴⁹ But, being meant as a satire, that description has little informative value. What evidence we have would indicate that there were the honored and well paid as well as the humble and poor.⁵⁰ If we assume that the representation of harpers as blind was based on observed reality—blind men would be likely to turn to the musical profession as the most adequate means of livelihood—we would have to ask ourselves whether this constitutes a departure from the tendency prevailing in Egyptian art to omit from the depiction any physical deformity of the model. The answer to this might be that this tendency does not necessarily apply to the minor personages who appear on another man's monument.⁵¹ It has been suggested that blind harpers were welcome because they could not see the women of the house.⁵² However, if that were the case, one may wonder why other

musicians, such as flutists and lutists, are not depicted as blind. Furthermore, if such practical consideration had been so important as to dominate the mode of representation, it is surprising that it should not have been reflected in the very numerous Old Kingdom depictions of harpers but that it should have been left for the more refined Middle Kingdom to emphasize such primitive precautions.⁵³ Whatever the origin of the practice, it is likely that in the course of time it became an artistic formula of characterization and, as such, independent of observed reality or of a specific meaning.

The harpers' songs of the Middle Kingdom, by which we understand songs recorded on monuments dating from the Middle Kingdom, come from private tombs as well as from funerary stelae. Their number is small, and they are short and simple compositions. We possess the following:

1. Stela in Cairo from Abydos
2. Leyden Stela V 68
3. Leyden Stela V 71
4. Tomb of Senbi at Meir
5. Tomb of Antefoker, No. 60 at Thebes⁵⁴

The Cairo stela from Abydos is a simple round-topped one with the customary pair of magic eyes near the top.⁵⁵ Under them in horizontal lines is the text. In the left corner the deceased sits at the offering table. In front of him the harper squats on the ground. This is the song:

(1) The singer Tjeniaa says:
How abiding art thou^a in thy abode (2) of eternity,

⁴⁹ Müller, *Die Liebesposse der alten Ägypter*, p. 2.

⁵⁰ For a royal harpist see Kuentz, *Recueil Champollion*, pp. 602-10.

⁵¹ When the owner of a tomb himself is depicted in all his deformity, it surely represents an exception and must be due to his personal insistence. See, for instance, the Cairo statue of the dwarf Senb and the reliefs in his tomb; the latter are published in *Anzeiger der Kaiserl. Akad. der Wissenschaften (Wien)*, Vol. LXIV (1927), Pl. V.

⁵² Blackman, *The Rock Tombs of Meir*, II, 12-13.

⁵³ For the truly barbaric custom of blinding the harpers, practiced by some of Egypt's African neighbors, see Roscoe, *The Baganda*, p. 35.

⁵⁴ The songs from this tomb have not been included in this collection, for they are very fragmentary and obscure. The reader is referred to the tomb publication: Davies, *The Tomb of Antefoker*.

⁵⁵ Peet, *The Cemeteries of Abydos*, Vol. II, Pl. XXIII, 5. Sethe, *Ägyptische Lesestücke*, p. 87. Gardiner, *Egyptian Grammar*, p. 421.

In thy tomb of everlastingness!
 It is (3) filled with offerings of food,^b
 It contains every (4) good thing
 Thy ka is with thee,^c
 It does not part from thee,^d
 O chancellor of the King of Lower Egypt,
 Great steward (5) Nebankh,
 Thou hast sweet breath of the north wind.
 (6) So says his singer who keeps his name alive,
 (7) The praised one, the singer Tjeniaa,
 (8) Whom we loved,
 Who sings to his ka every day.⁵⁶

^a *mnt.wy tw* apparently stands for *mn.wy tw*.

^b *hṭp.w.t ḏf̄.w* can be a compound term meaning "food-offering," so in Sethe, *Urkunden der 18. Dynastie* (hereafter cited as "*Urk. IV*"), pp. 227, 112, 467, and in Louvre C 1. But it can also represent two parallel terms as in *ḥ³ m hṭp.w.t ḥ³ m ḏf̄.w*, Louvre A 134 (*PSBA*, XXII, 35).

^c *k³.k ḥn̄.k* is a well-known funerary formula; see, e.g. *Urk. IV*, pp. 499 and 1222; parallel to *ib.k n.k* in Sethe, *Die altägyptischen Pyramidentexte* (hereafter cited as *Pyr.*), § 1869, a.

^d The negation *—* is intended. For *tš̄i r* see *Urk. IV*, p. 38.

This song is a distinctly funerary composition which exhibits some of the typical mortuary commonplaces, such as the offering of food and other good things, the presence of the ka, the sweet breath of the north wind, and the perpetuation of the name. With the essential safeguards for survival thus named, the song is no less efficacious than the *hṭp-dī-nšw.t* formula of offering which it has replaced on this stela. In other words, instead of using the stereotyped offering formula, this stela fulfils its funerary function by means of a more original composition. And the greater freedom of content is supplemented by a more intimate form of delivery: it is the song of a harper directly addressing his dead master and not the impersonal offering formula which can be spoken by any stranger

⁵⁶ The numbers in parentheses refer to the lines of the text, the superior letters to our notes on the translation.

passing the monument. The praise of the tomb, with which the song begins, is a distinctive feature not common for the funerary stela but recurring in another harper's song from the stela next to be considered.

Leyden V 68⁵⁷ is a stela in form of a door which is divided into three registers. In the upper register the deceased is seated at the offering table. His wife stands behind him, and an exceedingly fat harper squats in front of him. Above the heads of man and wife is the *hṭp-dī-nšw.t* prayer and the names of the pair. In front of and above the harper is his song. In the two lower registers sons bring offerings. The harper's song is quite laconic: (1) O tomb, thou hast been built for festivity, (2) Thou hast been founded (3) for goodliness! (4) The singer Neferhotep born of Henu.

The similarity between the two songs is obvious. Both texts occur in the simple offering-table scene and are purely funerary. But whereas the harper's song was the only text on the Cairo stela and had replaced the offering formula, the Leyden stela has a separate offering text and also depicts the presentation of food by members of the family. Hence the harper with his song is an additional nicety rather than a necessity. It is also noteworthy that in the praise of the tomb, which is the theme of the song, it is the tomb, and not the deceased, which is directly addressed.

Leyden V 71⁵⁸ is a large family stela with a small and inconspicuous harper and a harper's text which seems to have escaped attention. In the upper half of the stela two couples facing each other are seated at a central offering table.

⁵⁷ Boeser, *Beschreibung der ägyptischen Sammlung . . . in Leiden*, II, 33; Sethe, *Ägyptische Lesestücke*, p. 87; Steindorff, *ZAS*, XXXII, 123.

⁵⁸ Boeser, *Beschreibung der ägyptischen Sammlung . . . in Leiden*, II, 9. It is numbered "V 3" in Boeser's bibliography, *op. cit.*, p. 5.

Above their heads are their respective offering prayers, names, and titles. The lower half is divided into two registers filled with numerous small figures of family members and priests performing offering rites. Among them, in the left corner of the bottom register, squats the harper in front of a heap of food. Above the heap in four vertical semi-hieratic columns, is his song (see Pls. IV, *b* and VI, *b*):⁵⁹

(1) O Osiris this Siese,^a awake thou!^b

Geb has brought thee Horus,

(2) And he recognizes thee,

Horus has found thee,

<And it is beneficial> to him through
<thee>

(3) In thy name of "He who awakes well,"¹⁰
Great Steward Siese, justified!

(4) The singer Iker born^d of *S3.t-hnt-hly-htp*.

^a The deceased Siese, whom the harper addresses, is the chief personage of the stela.

^b The whole text is based on *Pyr.* § 612, *a-b*.

^c Apparently *m rn.k n rs wd*³.

^d The mistake *ir.t.n* for *ir.n* also occurs in one of the texts in the upper half of the stela.

This text, too, is a simple funerary prayer for the benefit of the deceased. It differs from the preceding harpers' songs inasmuch as it is an adaptation of a pyramid text and not an independent composition.

In the tombs of the Middle Kingdom representations of harpers are not uncommon, but their songs are very rarely recorded.⁶⁰ The harper's song in the tomb

⁵⁹ With the exception of the Song of Play, the original disposition and appearance of the hieroglyphs have not been retained in our hand copies.

⁶⁰ Middle Kingdom tombs depicting harpers are:

I. Meir:

1. Tomb of Wahhotep (Blackman, *The Rock Tombs of Meir*, Vol. II, Pls. XV, XXXII, 3), west wall, with two short very damaged lines of text
2. Same tomb; north wall (*ibid.*, Pls. III, XXI, XXII)

II. Beni Hassan

1. Tomb of Amenemhet (Newberry, *Beni Hassan*, Vol. I, Pl. XII)
2. Tomb of Baqt (*ibid.*, Vol. II, Pl. IV)
3. Tomb of Khety (*ibid.*, Pl. XIV)

of Senbi at Meir occurs in a scene which Blackman has described as a Hathor ceremony:

Senbi the justified stands facing a company of musicians, male and female dancers, and wrestlers, arranged in two lines and headed by the steward Khnum and a harper. Khnum is offering his master a gorgeous necklace appropriate to the ceremony and festivities in which he is about to participate. . . . The dancing girls ere they begin to dance, and while the harper sings the opening song . . . hold out toward Senbi their menats and sistrums. "For thy kas!" says the first, "the menats of Hathor."⁶¹

The harper's song is as follows:

Exalted is Hathor (goddess) of Love, O Ihuyu,
O Ihuyu,

When she is exalted on the holiday, O Ihuyu,
On the holiday, O Senbi, O Ihuyu!⁶²

This harper's song is a ceremonial hymn. As such it is related to the hymns recorded in the Eighteenth Dynasty banquet scenes and also to the hymns inscribed on temple walls.⁶³ On both occasions—the banquet of the private tomb and the temple ceremony—it is usual that there should be dancing in addition to the music. This is also the case in our relief from the tomb of Senbi, which depicts a group of dancers and three singers in addition to the harper. Senbi's harper thus occupies a minor position, reminiscent of the harpers in the banquet scenes of the New Kingdom tombs. It can therefore be said that this harper's song is on the

⁶¹ *The Rock Tombs of Meir*, I, 22-23, Pls. II-III.

⁶² The wording is rather obscure, and the translation, which is Blackman's, is by no means certain. The word *wšr* presents a problem, and so does *ihwyw*, which, according to Blackman, refers to the two men with castanets who also appear in the tomb of Amenemhet (see Davies and Gardiner, *The Tomb of Amenemhet*, Pls. XIX-XX). See also Peet, *JEA*, VI, 57.

⁶³ Harpers' hymns on temple walls form a class apart inasmuch as, being part of the temple ceremonies, they are not connected with, and not addressed to, private individuals. They have not been included in this study.

border line between harpers' songs in the strict sense and orchestra songs.

Summarizing the character of the harpers' songs of the Middle Kingdom, we would say that they are of two kinds. Those on mortuary stelae are funerary, invoking the dead and the hereafter. Those in private tombs either are ceremonial hymns which may or may not have funerary implications⁶⁴ (tomb of Senbi; also tomb of Antefoker)⁶⁵ or are purely funerary invocations and thus in line with those on mortuary stelae (tomb of Antefoker).⁶⁶ Where Middle Kingdom stelae depict harpers without recording their songs, the standard funerary representation of the offering-table scene leaves no doubt as to the funerary function of the harper.⁶⁷

On the pseudo-stela, Louvre C 17,⁶⁸ the mortuary banquet is represented: A female orchestra of one harpist and three singers and a dancing girl provide the entertainment to the meal which is attended by guests. This scene recalls the banquets from the tombs of the Eighteenth Dynasty. And a transition to these New Kingdom banquets, foreshadowed by this relief, is provided by the tomb of Sebeknekht at Elkab, which dates from the Second Intermediate Period and which depicts an orchestra singing a "holiday" song.⁶⁹

It results that the Middle Kingdom

records of harpers and their songs reveal, on the one hand, an established tradition of funerary and ceremonial harpers' songs and, on the other hand, point forward to the development of the orchestra song, which becomes a prominent feature of the banquet scenes of the New Kingdom. What we lack completely is any trace or echo on any Middle Kingdom monument of the famous worldly and hedonistic Antef song, believed to be a Middle Kingdom composition.

IV. THE HARPERS' SONGS OF THE NEW KINGDOM

The harper's text known as the song from the tomb of King Antef exists in two copies, both of which date from the New Kingdom: Papyrus Harris 500, which gives the complete text, is a Nineteenth Dynasty manuscript, and the fragmentary copy in the Memphite tomb of Paa-tenemheb, now in Leyden, belongs to the Amarna period. Nevertheless, the song is usually believed to be a Middle Kingdom composition. The reasons for this belief can be stated as follows: (1) The introduction, extant in the papyrus copy, relates that the song was recorded "in the house of King Antef." This king must be one of the Antefs of the Eleventh or of the Seventeenth Dynasty. (2) The language is classical Middle Egyptian. (3) The pessimistic tone of the song suggests its relation to a skeptic-pessimistic movement resulting from the upheaval of the First Intermediate Period and reflected in a number of Middle Kingdom compositions such as the "Dialogue of the Man Weary of Life."

The evidence, indeed, points to a Middle Kingdom origin. However, as already indicated, no Middle Kingdom monument or record reveals a trace of the song. Instead, it has come down to us in the two New Kingdom copies. Furthermore, and this is most important, it is the New King-

⁶⁴ According to Blackman (*The Rock Tombs of Meir*, I, 25, n. 6), the Hathor ceremony from the tomb of Senbi has funerary significance; according to Gardiner (Davies and Gardiner, *The Tomb of Amenemhet*, p. 96), the scene refers to the annual Hathor festival as celebrated during the tomb-owner's life.

⁶⁵ Davies, *The Tomb of Antefoker*, Pl. XXIX, p. 24.

⁶⁶ *Ibid.* Pl. XXVII, pp. 24-25.

⁶⁷ See Cairo stelae Nos. 20121, 20257, 20732 (Lange and Schäfer, *Grab- und Denksteine des mittleren Reiches*).

⁶⁸ Boreux, *BIFAO*, XXX (1930), 45, Pls. I-III.

⁶⁹ Tylor, *The Tomb of Sebeknekht*, Pls. VIII-IX.

dom which furnishes a number of harpers' songs which are closely related to the Antef song. These are good indications not only that the song was popular in the New Kingdom but that it actually started a literary fashion. And it is in order to point to its literary affinities with the New Kingdom, and not in order to deny its Middle Kingdom origin, that we have placed the Antef song at the head of our list of harpers' songs of the New Kingdom. These are the texts:

1. The Antef Song: Papyrus Harris 500 and Tomb of Paatenemheb
2. Song from the Tomb of Neferhotep, Thebes No. 50, north wall of passage; hereafter called "Neferhotep I" (Pl. VII)
3. Song from the Tomb of Neferhotep, Thebes No. 50, left rear wall of hall; hereafter called "Neferhotep II"
4. Song from the Tomb of Neferhotep, Thebes No. 50, left rear wall of hall; following on Neferhotep II; hereafter called "Neferhotep III" (Pls. I, II)
5. Song from the Tomb of Khai-Inheret, Der el Medineh No. 359, second chamber
6. Song from the Tomb of Paser, Thebes No. 106, on pillar in hall (Pls. III, V)
7. Song from the Tomb of Piay, Thebes No. 263, left door reveal (Pls. IVa, VIa)
8. Song from the Tomb of Neferrenpet, Thebes No. 178, south wall of hall
9. Song from the Tomb of Penniut, Thebes No. 331, left door reveal
10. Song from the Tomb of Tjanefer, Thebes No. 158, left door reveal⁷⁰

1. THE ANTEF SONG

The text occupies columns VI, 2, to VII, 3, of Papyrus Harris 500 (*Brit. Mus. Pap.*, No. 10060) and also exists, in a fragmentary state, in the tomb of Paatenemheb from Saqqara, now in Leyden. The tomb copy was engraved on the right-hand wall of the hall above the

⁷⁰ For the bibliography of these songs see the Appendix.

heads of an officiating priest and a group of four musicians led by a blind harpist. They face the deceased and his wife, who are seated at the offering table. The tomb dates from the reign of Amenhotep IV, Akhenaten. This is the song:

- (2) Song which is in the house^a of King Antef
the justified
(And) which is in front of the (3) harpist.
Flourishing indeed^b is this good lord!
A kindly fate has come to pass.^c
(One) generation passes away
And others (4) remain (in its place)
Since the time of the ancestors.
The gods that were aforetime
Rest in their pyramids;
Nobles (5) and glorified likewise
Are buried in their pyramids.
They that built houses,
Their places are no more;
What^d (6) has been done with them?
I have heard the sayings of Imhotep and
Djedefhor,^e
With whose words men (still) speak (7) so
much;^f
What are their places?
Their walls have crumbled,
Their places are no more,
As if they had never (8) been.
None cometh from thence^g
That he might tell their circumstances,
That he might tell their needs
And content our heart
Until we have reached (9) the place
Whither they have gone.
May thy heart be cheerful
To permit the heart to forget
The making of (funerary) services for thee.
Follow thy desire while thou livest!
(10) Put myrrh upon thy head,
Clothe thyself in fine linen,
Anoint thee with the genuine wonders
(11) Which are the god's own.
Increase yet more thy happiness,
And let not thy heart languish;^h
Follow thy desire and thy good,
(12) Fashion thine affairs on earth
After the command of thy heart.ⁱ

That day of lamentation will come to thee,
When the Still (1) of Heart does not hear their
lamentation,
And mourning does not deliver a man from
the netherworld.¹

'Refrain'.² (2) Make holiday!

Do not weary thereof!

Lo, none is allowed to take his goods with
him,³

Lo, none that has gone has (3) come back!

^a The "house of King Antef" is, of course, the
royal tomb.

^b *w³d pw*: the writing is clearly *w³d*, and the
meaning of *w³d* suits the context. The dead are
often referred to as being flourishing and pros-
perous, cf. *w³d.wy nn hpr n.f* (Davies, *The Tomb*
of Neferhotep at Thebes, Pl. XXIII); *w³d.wy st n³*
n rnp.w.t wd ntr hr.k (Virey, *Le Tombeau de*
Rekmara, Mémoires de la Mission Française,
Vol. V, Pl. XLII with *wd* for *w³d*; see also *Leyden*
Hymn to Amon, VI, 10 (ZÄS, XLII, 41).

^c *š³w nfr hdy*: *š³w nfr* clearly is a euphemism for
death, but *hdy* presents a problem, since no
satisfactory meaning can be obtained from it. We
have adopted the attitude of previous translators
who have treated it as a corruption and substi-
tuted *hpr* from the parallel phrase in Neferhotep
I, line 2.

^d *ptr* here and in line 7 seems to be the inter-
rogative pronoun "what" rather than the imper-
ative "behold," despite the wrong determina-
tive in the first occurrence; so also Sethe, *Im-
hotep der Asklepios der Aegyptier*, p. 10 (*Unter-
suchungen zur Geschichte und Altertumskunde*
Aegyptens, II, 4).

^e The recently published fragment of the
teachings of Djedefhor (Brunner-Traut, ZÄS,
LXXVI, 3-9) perhaps suggests that the two Old
Kingdom sages are introduced here not merely
because of their general fame but because of a
more specific connection between their teachings
and the musings of the harper. For the Djedefhor
fragment recommends the traditional provisions
for survival: "Make excellent thy dwelling place
of the west . . . the house of death is for life."
The harper, however, reflects on the vanity of
these efforts. See *ibid.*, p. 7, on the reading
"Djedefhor" instead of previous "Hordedef."
On the two wise men see also Gardiner, *Hieratic*
Papyri in the British Museum (3d ser.), Vol. I:
Text, pp. 39-40.

^f Or "words related as their own utterances—
very much."

^g Apparently for *bw il.tw*. The Leyden variant
bn il im, "nonexistent is one who comes from
thence," is better.

^h *iml h³w nfr.w.k*, etc. The usual procedure is
to interpolate the preposition *hr* after *h³w* and
the negative imperative *m* before *b³g³y*. Both
emendations are based on the Leyden text; see
also Neferhotep I, line 28.

ⁱ *m wd ib.k iw n.k hrw*, etc. The Leyden text
has *m h³d ib.k r iw n.k hrw*. Both readings provide
an adequate meaning. When the reading *wd* of
Harris 500 as against *hd* of Leyden is retained,
the phrase "after the command of thy heart"
is the conclusion of the preceding sentence; and
then the interpolation of the preposition *r* before
iw n.k to obtain the meaning "until that day of
lamentation comes to thee" is unwarranted.

^j The Leyden text gives the correct reading
for this phrase.

^k The *Wörterbuch* (Erman and Grapow,
Wörterbuch der ägyptischen Sprache) has adopted
the translation "refrain" for *m³wt*, basing it on
m³wt.f m h³t.f of *P. med. London*, 16, 4; 17, 5;
18, 5, 11; but it remains guesswork.

^l A very similar saying is *šm s šm ht.f*, "when
man goes his belongings go" (Lefébvre, *Le Tom-
beau de Petosiris*, II, 90).

The opening phrase of the song has a
twofold intention. On the one hand, it is a
simple statement of the fact that the per-
son in whose honor the harper sings is
dead; on the other hand, it is an affirma-
tion, made with exclamatory emphasis,
that the state of death is one of prosperity
and happiness. As indicated by the paral-
lels quoted above, the terms "to flourish"
and "to be happy" are commonly applied
to the dead man's existence in the here-
after, and the exclamatory form is often
used as a greeting extended to the dead
upon his arrival in the beyond.

The theme of death having thus been
introduced is now further elaborated:
The singer points to the transitoriness to
which all life is subject, and this, in turn,
leads him to observe that all-embracing

death treats kings and commoners alike; for both "lie buried in their pyramids."

At this point a new line of thought begins. Death, first viewed positively and described objectively, suddenly becomes the object of anxious questions and laments. Confidence and tranquillity are replaced by doubt and disbelief. What traces do men leave on earth, and how do they fare once they are dead? "They leave no trace at all," is the answer; and of their existence beyond the grave nothing is known, for none has ever come back to report. Now, then, if complete oblivion is man's fate, it is best to forget all sadness and enjoy to the full the pleasures of life. Make the best of all good things, for you cannot take them with you; nor can you return once you are gone.

This, then, is the famous skepticism of the song and its equally famous *carpe diem* message. The surprise to find such a skeptic and hedonistic attitude among the world's most religious people has, *inter alia*, led the commentators to a diligent collecting of parallels from the literatures of other nations in order to demonstrate that what the Egyptians express here is, after all, a very natural and common state of mind. Doubts or disbelief regarding immortality will easily engender a hedonistic philosophy of life. Ecclesiastes, Anacreon, Horace, Omar Khayyam, and others are called upon to furnish examples of this attitude.

These comparisons, however, do not account for the circumstances which surround the conception and the recording of this song and similar harpers' songs and which are not easily paralleled by anything we find in other literatures. But it is precisely these peculiar circumstances which need to be investigated, for they alone explain the difficulties and paradoxes as well as the specific flavor of these compositions.

What further limits the value of the comparison with the *carpe diem* advice as expressed in other literatures is the fact that this advice does not spring from one particular attitude. There is, for instance, a considerable difference between the mel-low cheerfulness of Horace and the brooding melancholy of Omar Khayyam. Therefore, unless one is willing to engage in a series of definitions concerning the various kinds of *carpe diem* advice, it is preferable altogether to avoid this terminology, even though the "make-holiday" phrase of the Antef song so readily lends itself to the translation into *carpe diem*. An additional reason for avoiding the term lies in the fact that the "make-holiday" motif is not peculiar to this harper's song but is, as we have seen, a standard figure of speech with a funerary as well as a secular application. We do not deny, however, that the Antef song so combines the "make-holiday" motif with skeptic and melancholy reflections on death as to create an attitude reminiscent of, though not identical with, the classical *carpe diem*.

We shall have to say more about the Antef song when discussing some of the other harpers' songs. For the moment a few points of detail need to be emphasized: (1) The beginning of the song reveals a positive attitude toward death and a tranquil acceptance of transitoriness and thus contrasts sharply with the main body of the poem. (2) Contrary to other harpers' songs which use the "make-holiday" motif, the advice to make merry is here not explicitly addressed to the tomb-owner. This difference is significant, and we shall return to it later. (3) With regard to the structure of the song it should be noted that the flow of thought is governed by association, not by argument and deduction. It is owing to this loose mode of composition, which incidentally is typical for oral tradition, that the

essential unity of the poem is maintained despite the break in thought and mood which occurs after the first few phrases. For the flow of association allows the combination of heterogeneous elements and gives to the individual phrase a large measure of independence. This technique also accounts for the fact that the motifs of the Antef song reappear with many variations in the other harpers' songs where, through minor changes, they were stripped of their original meaning and used to create new songs in a new vein.

2. NEFERHOTEP I

The setting of this song is the offering-table scene (see above, p. 178). The tomb dates from the reign of Haremhab. Our text (see Pl. VII)⁷¹ is based on a combination of photographs, previous publications, and a photograph of Hoskins' manuscript.

(1) Thus speaks the harpist who is in the tomb of the Osiris, the divine father of Amun, Neferhotep the justified; he says:
How reposed^a (2) is this righteous lord!
The kindly fate has come to pass.
Bodies pass away since the time (3) of the god,
New generations come in their place.
Re shows (4) himself^b at dawn,
Atum goes to rest in the Western Mountain.
Men beget,
Women (5) conceive,
Every nostril breathes the air,
Dawn comes and their children (6) have gone to their tombs.^c
Make holiday, O divine father!
Put incense and fine oil (7) together to thy nostrils
And garlands of lotus and *rrmt*-flowers upon thy breast,
While thy sister (8) whom thou lovest sits at thy side.

⁷¹ A good hand copy is available in Müller's edition, *Liebespoesie*, Pl. I. Our plate therefore gives only a photograph of the text, which, we think, will be welcomed, since no photograph has previously appeared.

Put song and music before thee,
Cast (9) all evil behind thee;
Bethink thee of joys
Till that day has come of landing
At the land that loveth silence^d
<Where> (10) the heart of the son-whom-
he-loves does not weary.^e
Make holiday, Neferhotep the justified!
Thou excellent divine father,
Pure of hands.
I have heard all that happened to the ———,
Their (11) buildings have crumbled,
Their dwellings are no more;
They are as if they had not come into being
Since the time of the god.
The ———
—————
—————^f

(12) On the shore of thy pond,
That thy soul may sit under them
And drink their water.
Follow thy heart wholly

(13) Give bread to him who has no field,
So shalt thou gain a good name for the future
forever.

Thou hast observed th[ese 'sem-priests
Clad' in skins]* (14) of the panther;
They pour libation to the ground;
The loaves are offering bread;
Songstresses 'are in tears' ———

(15) Their mummies are set up ['before'] Re,
While their people are in mourning.
Thou dost not ———

————— (16) comes in her time^h
And Fate reckons his days.
Awaken ———

(17) Dwelling powerlessly in that which was
made for his shade,ⁱ
Make holiday, O pure of hands,
Divine father Neferhotep the justified!

(18) No work for the granaries of Egypt,
While his court is rich in ———
————— (19) again

In order to know 'what remains over from
him'.

Not a short moment has been left out
In ——— (20) desert.

Those who had granaries with bread to offer,
And those ——— (21) likewise,

They shall spend their happy hour

In ——— (22) time.

The day that grieves the hearts,

That puts the house in ———

(23) Think of the day when thou shalt be
dragged

To the land that ['mingles people']¹

——— (24) greatly.

There is no coming back.

It benefits thee ———

(25) Thou art one righteous and true^k

Whose abomination is falsehood.

When there is love of rightness ———

——— (26) the weak from the strong;

Not tarries¹ he who is in ———

——— (27) who has no protector.

A commander who ———

(28) Increase thy happiness to perfection

——— (29) Maat, Min, and Isis,

The nourishment which gives ———

(30) ——— 'she summons thee in old age' to
the place of truth

Without ———

^a *wrd.wy* takes the place of *w3d pw* of Harris 500. The general pattern and meaning of the introductory formula is the same as in the Antef song.

^b *rdi* *sw*: the reflexive use of *rdi* applied to the sun provides an ingressive meaning and seems to be an idiomatic expression denoting the process of sunrise; cf. *dik tw dw3w* (Brit. Mus. Stela No. 826, 5); *dik twrr3.k* (Book of the Dead, 15, 24 [Budge]); see also Louvre C 67, 2; Book of the Dead, 15, A, 1, 12 (Naville); and *Recueil de travaux*, II, 72.

^c Literally "their places."

^d For the "land that loveth silence" (see ZÄS, LXV, 122).

^e Without the addition "where," or some other emendation, the phrase is incomprehensible. The "son-whom-he-loves" is Horus in his mortuary service for his father Osiris.

^f The only certainty about the lacuna is that it contained the word "trees" or the name of a particular kind of tree.

^g The restoration *m inm*, which had been adopted by Max Müller, is now borne out by the parallel text in the tomb of Paser, line 9; see p. 203.

^h Maspero restored *rnnt* as the subject of *hr it*, since *šy* and *rnnt* are sometimes found in parallelism; so in *šy rnnt dm3 m hf.k* (Lepsius,

Denkmäler, III, 237c = ZÄS, XI, 74). But, according to the *Wörterbuch*, *šy* always precedes *rnnt*.

ⁱ I.e., the dead man in his tomb.

^j Maspero read *šb* and restored *rm3* on the strength of Theban tomb No. 49 (see Davies, *The Tomb of Neferhotep at Thebes*, Pl. XXIII): *twk hr šmt r p3 t3 šbb rm3*. In view of the disposition of the signs, *šbb* is preferable to *šb*.

^k Apparently $\parallel \parallel = m3ly$; see also *Urk. IV*, p. 48, 12-14.

^l $\Delta \parallel \Delta \Delta$ probably stands for $\Delta \parallel \Delta \Delta \Delta$; cf. Neferhotep II, line 6.

The opening phrases of this song follow the pattern of the Antef song. But the remark on the transitoriness of all beings is elaborated by a new motif: the rising and setting of the sun. This is a standard theme of sun hymns, but in the context of harper's songs it is novel. Its use here is significant, for transitoriness of the body is now viewed as an integral part of the cosmic order which is governed by the cycle of decline and renewal, death and rebirth. This perspective does not induce a negative attitude toward death. And, indeed, the outcry against oblivion which in the Antef song follows on the theme of transitoriness is suppressed altogether. Its place is taken by the "make-holiday" motif.

This "make holiday" is addressed to Neferhotep himself. Yet it does not refer to his feasting in the hereafter, for the phrase "till that day has come of landing" clearly indicates that it is the living man who is urged to enjoy himself. The mortuary epithet *m3c hrw* ("justified"), which is attached to his name in the repetition of the "make holiday" (l. 10) is no proof to the contrary. It has slipped in because it was customarily used in tomb inscriptions, and it is no more incongruous than the request for "a good old age" so often included in mortuary prayers. The song starts from the assumption that Neferhotep is dead; but the "make merry"

as well as the moralizing advices to do good are intended for the living man. Thus the poem shares the peculiarity of the texts on stelae, statues, and the like which face in two directions: They all combine funerary and secular motifs in a way which will make the prayers effective and appropriate for life as well as for death.

After the "make merry" appear some fragments of the Antef song's description of the vanity of human activities. But the theme is so reduced as to lack all poignancy. Then comes a long and unfortunately obscure discourse in which advice to live in accordance with moral and religious custom is mingled with the reminder of death.

This song of Neferhotep represents the attempt to compose a harper's song which will be in harmony with traditional belief while at the same time developing the "make-merry" motif in the secular sense in which it was known from the Antef song (i.e., as an exhortation toward merriment combined with a reminder of death). In the resulting transformation the skepticism of the Antef song has vanished and its gloom has been subdued. Thus this text is more than a mere variant of the Antef song distorted by some pious interpolations. Rather is it a transformed version in which the haunting "make-merry" motif is set into a frame of orthodox concepts. This compromise naturally affects the composition and makes the poem less unified and harmonious than might be desired.

3. NEFERHOTEP II

The setting of this song is the funerary banquet depicted in the hall of the tomb. The present text is based on Gardiner's edition and photographs.

(1) Thus speaks the harpist of the divine father of Amun, Neferhotep the justified:

All ye good nobles and the Ennead of the Mistress of Life^a
Hear ye (2) the giving of blessings to the divine father
In worshipping his excellent soul of a good noble,
Now that he is a god that liveth forever
And is exalted in the West,
That they may become (3) a remembrance for posterity,
For every one that cometh to pass by.
I have heard those songs that are in the tombs of old
And what they relate in extolling the earthly^b
And in belittling (4) the land of the dead.
Wherefore is the like done to the land of eternity,
The just and fair that holds no terror?
Strife is its abomination,
There is none that girdeth (5) himself against his fellow.
This land that has not its opponent,
All our kin rest in it since the time of first antiquity.
They that shall be born to millions upon millions
Come to it (6) all.
There occurs no lingering in the land of Egypt,
There is none that does not approach it.
As for the span of earthly affairs,
It is the manner of a dream.
One says "welcome safe and sound"
To him who has reached (7) the West.

^a Apparently *nb nḥ* is to be understood; for this designation of the necropolis see Gauthier, *Dictionnaire des noms géographiques*, III, 82.

^b For this nominal use of *tp t3* meaning "life on earth" see also *ḥtp.w nṯr ḥr š3 tp t3.k* (*Recueil de travaux*, XIV, 178).

This song, to which Gardiner has given the title, "In Praise of Death," is, indeed, an unambiguous glorification of death and the land of the dead and thus very different from the two preceding songs. The poet is well aware of this difference; he actually engages in argument against "those songs that are in the tombs of old" which deprecate the hereafter, and he attempts to refute their skepticism. And, yet, the

hereafter which he has set out to praise emerges from his description as a strangely shadowy place, devoid of all the colorful attributes which the funerary literature otherwise is so intent on bestowing on it. Its chief characteristic in the view of our poet is its peacefulness. Happiness therein is conceived in terms of calm and quietude. Although the gods are addressed in the opening of the song, no further mention is made of them. Nor are there any allusions to celestial topography. The vigorous activities of life, the continuation of which man was wont to expect from the hereafter, are not mentioned. Stress is laid on the all-embracing power of this land of the dead; in other words, on the inescapability of death, a theme which is characteristic of the songs of Antef and Neferhotep I. What, then, is the precise nature of this poem? What is its relation to the "make-merry" songs? And why is it recorded in the same tomb that furnishes a "make-merry" song? Before answering these questions we must look at the third harper's song of this tomb.

4. NEFERHOTEP III

This song follows directly on Neferhotep II on the same wall and is part of the same banquet scene. Our text (see Pls. I, II)⁷² is a combination of previous editions, photographs, and a photograph of Hoskins' manuscript; the latter proved most valuable. This is the song:

(1) Beginning of song:

Remember, O heart, that day of death,
May it be put in the heart of him who has a
burial,

Because indeed there is none (2) who passes it
by,

Strong and weak are alike.

Whoever sails north or south during life

⁷²In Dümichen's edition the text is numbered consecutively with Neferhotep II and another text on the same wall; hence our line 1 corresponds to his line 15.

Lands on the shore thereafter.

(3) O divine father, what is thy good fortune,
That thou art united to the lords of eternity!
How firm is thy name unto eternity
And glorified in the land of the dead!
Every god whom thou hast served since thou
hadst thy being,

Thou enterest in face to face^a (4) with them.

They are prepared to receive thy soul

And to protect thy nobility.

They multiply the produce of thy hands,

And they shall purify thy beauty.

They furnish the altar (5) of thy mummy,

Every god with his food-portions.

They say to thee:

Welcome in peace, O person^b agreeable to our
ka!

For the divine father of Amun, Neferhotep,
Son of the honorable Amenemonet the justified.

(6) O divine father, I hear the praising of thee
Before the lords of eternity;

One says concerning thee: "He has drawn the
Sokar bark."

Thou hast placed Sokar upon his sledge,^c

Thou hast circled the walls in his (7) following,

'When there is illumination for his breast'.

He has erected the *dd*-pillar in ———

A sem-priest at his duties,^d he has grasped the
hoe

On the day of hacking the earth;

He has recited the liturgy of (8) Busiris.

Good is thy being with the gods!

Thou art remembered on account of thy
worth,

According as thou are one who has (right of)
entrance into Heliopolis

And one who knows the mysteries which are
in it.

For the lector-priest who satisfies the heart of
Amun,

Neferhotep the justified.

(9) O divine father, thy soul advances,

Thy sarcophagus 'approaches',

Anubis places^e his hands on thee,

The Two Sisters embrace thee;

Purification is done to thee anew,

Thou art 'designated' (10) with a work of
eternity,

The stone-(image)^f of a god in its exact form;
Ointment from the hands of Shesmu,^g

Clothing by the work of Tayit.^g
 The sons of Horus are thy protection,
 (11) The Two Kites sit at the gate for thee
 And lament over thy name,
 According as thou wast beneficent while on
 earth

To Amun thy lord.

The divine father of Amun, Neferhotep the
 justified:

(12) O divine father, thou art remembered
 in Heliopolis,^h

Thou art protected (13) in Thebes.

There is no searching after thee in eternity,

(14) And thy name shall not be 'forgotten',ⁱ

According as thou art one righteous (15) in
 the house of Ptah,

Entering in face to face at the great place;

It is completed with charm

At his great (processional) (16) appearances,


'The expanse of eternity knows its radiance'.^j

Thou hast risen and art happier (17) than thou
 wast,^k

O blessed Neferhotep, justified!

Thy son is triumphant,

And his enemies are felled forever.

^a According to Gardiner,  means "face to face" (see *PSBA*, XXXV, 170).

^b On the meaning of *hm* see *ZÄS*, LXXV, 18, and *JEA*, XXIX, 79.

^c The *msh*-sledge is meant; cf. *iw.f im n hb skr hrw rdil hnw hr msh* (Brit. Mus. Stela No. 155, ll. 16-17); similarly *The Papyrus of Ani*, Pls. V-VI. For the drawing of the bark see Book of the Dead, 100, 3. A Middle Kingdom occurrence of the *msh*-sledge is noted in *AJSL*, II, 195. Taking the Sokar-bark on a circuit of the walls is shown in *Medinet Habu*, Vol. IV, Pls. 223, 226. The Sokar-bark is also depicted in Neferhotep's tomb. On the mortuary character of these ceremonies, including the erecting of the *gd*-pillar and the hacking of the earth, see Schott in *Oriental Institute Communications*, XVIII, 78 ff.

^d *sm m iry.w.f* is to be understood; cf. *The Papyrus of Ani*, Pl. VI, 27 ff., which enumerates the same ceremonies as in line 7 of our text: the grasping of the hoe, the hacking of the earth, and the reciting of the liturgy; see also Book of the Dead, I, 20 ff. (Naville).

^e Read *wsh*? For this action of Anubis see also De Buck, *The Egyptian Coffin Texts*, I, 223f, g; Book of the Dead, 18, 32; 151 A, 1 (Naville).






^f *šsmw* the god of the wine press occurs in

Pyr. §§ 403a, 545b, 1552a; Book of the Dead, 17, 27 (Nebseni; Budge); 153 A, 8.

^g For Tayit, the goddess of weaving who clothes the dead, see *Sinuhe* B 190; *Pyr.* §§ 738-41; *Coffin Texts*, I, 254c; Book of the Dead, 82, 7.

^h Cf. *šh3.k m iwnw* in *Recueil de travaux*, XIV, 178.

ⁱ Read *nn smh tw rn.k?*

^j I take    to be for  ; but see above, p. 193, n. k.

^k Cf. *Pyr.* § 122b; Davies, *The Tombs of Two Officials*, Pl. XXVI; Lefèvre, *Inscriptions concernant les Grands Prêtres d'Amon*, Nos. 33, 1, and 40, 1.

This song, which is separated from the preceding only by the words "beginning of song," is quite different from either Neferhotep I or Neferhotep II. The text has received little attention. But in the over-all picture of harpers' songs it occupies an important place.

Its opening theme is the inescapability of death—a theme by which this text is linked to the preceding songs. But for the rest the trend of thought is entirely different. The dead man is praised and reassured about his fate in terms of the traditional mortuary repertoire as embodied in the prayers of funerary stelae and the spells and invocations of the Book of the Dead. He is told that the ceremonies accompanying the burial have been duly performed, his survival in the hereafter has been assured, and he is well received by the gods, his observance of religious duties during life having secured their favor.

The tomb of Neferhotep thus contains three harpers' songs, each with its own distinctive background and tendencies. Neferhotep I is a "make-merry" song of mixed antecedents (i.e., a combination of secular and funerary motifs). Neferhotep II is a praise of death of an apparently unique kind and yet, by virtue of its melancholy overtone, reminiscent of the laments on death traditionally spoken by the mourning survivors. Neferhotep III,

with its emphasis on observance of religious custom in life and death, stands wholly within the tradition of the mortuary literature.

The recording of three such songs in one tomb is a unique phenomenon. Yet the tomb of Nefersekhru with its laments on death alongside a harper's praise of death⁷³ is indicative of a similar procedure which suggests that it was not too unusual to express conflicting sentiments and views concerning death in one and the same tomb. We do not believe with Erman that the "pious" harper's song—Neferhotep II—was intended as a refutation of the "impious" Neferhotep I.⁷⁴ Rather than being refutations of impious ideas, Songs II and III from the tomb of Neferhotep reflect the mental struggles of generations of Egyptians attempting to grasp the significance of life and death. These speculative efforts reach their high-water mark in two periods of Egyptian history: in the Middle Kingdom, when the "Teachings for Merikare," the "Dialogue of the Man Weary of Life," and similar wisdom texts were written, and in the spiritual revolution of the Amarna period. The priest Neferhotep, who died in the reign of Haremhab, must have witnessed the upheaval under Akhenaten as well as the subsequent restoration. And both the emotionality of Akhenaten's reign and the stern traditionalism of his successors appear to be mirrored in the songs of his tomb. His desire to have these three songs recorded in his tomb would indicate his personal preoccupation with the problems dealt with. But we may also hold the spirit of the time rather than this individual man responsible for the uniqueness of the tomb.

It is characteristic of the treatment of these problems that there is no clear-cut solution. Praise of life, fear of death, and

praise of death are juxtaposed without sign of embarrassment. An argumentative attitude is there, but no desire to eradicate one position in favor of another; rather there is a tendency toward compromise. This may be due to a truly human wavering between fear and hope. But the deeper reason for it is the peculiar prismatic quality of the Egyptian mind which attacks the problems of life from a variety of angles, always striving toward the center of the secret but never willing to discard any one approach for the sake of another. Oftentimes an organized view is achieved by means of a dichotomic scheme of things, governed by the idea of the pair—a complementary and non-dialectic dualism. Then, again, no such order is achieved, and the manifold and diverging views are only superficially harmonized. Such is the case in the tomb of Neferhotep: the juxtaposition of Neferhotep I and II reveals the same effort at harmonization that is responsible for the compromising character of Neferhotep I. The third song might be considered the solution, inasmuch as it is the triumph of religion, but it makes no attempt to refute the other positions.

Even the Antef song has not escaped the harmonizing tendency. The origin of this song may have been different from that of the others. Its distinctly secular hedonism would indicate that originally it was not intended for recording in a tomb. Rather is it a product of the same literary tradition to which the Wisdom Literature belongs; finally, a king Antef wished to have this poem recorded in his tomb-chapel, for which purpose it was furnished with a fittingly funerary introduction. Having thus become a tomb text, it interrupted the tradition of harpers' songs, which heretofore had been strictly funerary and inaugurated a new trend. But it is only in one tomb—that of Paatenemheb—that the song was

⁷³ See Kees in *ZÄS*, LXII, 73 ff.

⁷⁴ See above, p. 181.

copied in its original form, perhaps because the Amarna period, with its emphasis on the beauty of life, provided a congenial atmosphere. And even there the spirit of tradition and of compromise was at work; for the song is engraved above a strictly funerary scene: the semipriest administering to the deceased, who is seated at the offering table. For the rest, the forces of tradition have worked upon the song itself, and the result is the version of Neferhotep I as well as the two songs now to be considered.

5. SONG OF KHAI-INHERET

The song is recorded in the second chamber of a tomb (Der el Medineh No. 359) dating from the reign of Ramses III. The text occupies the south wall, which depicts the deceased couple seated in front of the squatting harpist. There is no offering table. The song has been published without a translation, and no translation has appeared since then. The present text is according to the publication.⁷⁵

(1) Thus speaks the musician of the Osiris, the chief of the workmen in the Place of Truth,^a Khai-Inheret (2) the justified;

I say:^b

I am this lord, this man (in) truth, Through the goodly destiny^c (3) which the god himself made.

The form which appears in the body passes away

Since the time of the god;

New generations come (4) into their place.

The souls and the spirits who are in the underworld

And the mummies likewise.^d

They that built (5) houses and tombs as well,

They are the men who rest in their pyramids.

Make for thyself a tomb in the holy (6) land,

That thy name may last in it.

Thy works of the necropolis shall be reckoned,

And excellent shall be thy place of (7) the West.

⁷⁵ The plates in Bruyère's edition give the correct readings, but the printed text on his p. 70 contains a number of errors.

(As) the waters go downstream
And the north wind goes upstream,
(So) every man (goes) to his (appointed) hour.

Make (8) holiday, O Osiris, chief of the workmen in the Place of Truth,

Khai-Inheret, justified!

Do not let (9) thy heart be weary, verily, verily!

(Thou) and thy beloved.

Do not vex thy heart while thou existest,

(10) Make holiday, verily, verily!

Put incense and fine oil together beside thee

(11) And garlands of lotus and *rrmt*-flowers upon thy breast.

The woman whom thou lovest,

It is she who (12) sits at thy side.

Thou shouldst not anger thy heart

Over anything that has happened.

Put music before (13) thee,

Do not recall evil, abomination of the god;

Bethink thee of joys,

(14) Thou righteous, thou just and true man,

Calm, (15) friendly, content, relaxed,

Happy, not speaking evil.

Give drunkenness (16) to thy heart every day^e

Until that day comes in which there is landing!

^a "Place of Truth" is a name for the necropolis of Der el Medineh (see Gauthier, *BIFAO*, XIII, 153 ff.; Boreux, *JEA*, VII, 113 ff.).

^b The change from the third person into the first makes poor sense and is probably a corruption.

^c *h3w* is a corruption of *š3w*.

^d This phrase is a distortion of lines 4-5 of the Antef song. In its present form it makes poor sense.

^e Understand *m hr.t hrw*.

The dependence of this song on the text of Antef and of Neferhotep I is obvious. But the changes are significant, and the whole is not without originality. As usual, the dead man is introduced in the beginning. Strangely enough he speaks himself instead of being addressed by the harper. Then the harper speaks again, and just as in the songs of Antef and Neferhotep I,⁸ transitoriness is his first theme. In the wording he closely follows the Antef song. The next theme, concerning

the fate of those "that built houses," is also retained in the same place in which it appears in the Antef song. But what our harpist says about them, namely, that "they rest in their pyramids," is, although the phrase is also borrowed from the Antef song, the opposite of the Antef song's remark that "their places have disappeared."

So far the song has retained the order of themes as they appear in the Antef song and has changed their meaning chiefly by the device of rearranging the stock of phrases and by altering the second half of each phrase. This method is an interesting indication of the manner in which the old songs were remembered as well as remodeled. It also shows that the author of this song did some direct borrowing from the Antef song.

Beginning with the phrase "make for thyself a tomb," our poem no longer follows the Antef song. Obviously this advice is diametrically opposed to the letter and spirit of that song. The wording of the exhortation to provide for a good burial is reminiscent of *Merikare*, lines 127-28: "Make good thy house of the West, make excellent thy dwelling-place of the necropolis" (*škr h.t.k nt imn.t šmnh š.t.k nt hr.t ntr*).⁷⁸

The "make-merry" motif, which begins at the end of line 7 and runs up to line 14, is closely related to Neferhotep I, lines 6 ff.; but here it is even more elaborate. The "holiday" as described in both these songs follows the pattern of the "holiday" texts recorded with banquet scenes; the Antef song's description of the holiday is somewhat different. It may not be without significance that the "beloved woman who sits at thy side" is absent from the Antef song but is almost always depicted in the funerary banquet and in the offering-table scenes in the tombs.

⁷⁸ Cf. also the Djedefhor fragment (above, p. 193, n. e) and *Urk. IV*, p. 123, l. 9.

After "bethink thee of pleasures" the drift of thought is entirely new and constitutes a pleasing bit of originality. The enumeration of moral qualities, which here is mingled with the description of personal well-being, is somewhat surprising in this context, but the motif as such has, of course, a long tradition, being an important theme of the funerary stelae and other mortuary texts.

The allusion to "that day of landing" is familiar from Neferhotep I and III, but its use as an ending is new and very effective—provided that the "make-merry" advice is addressed to the living man. And that seems to be the case, in spite of the epithet "Osiris," which precedes the tomb-owner's name and corresponds to the *m³c hrw* of Neferhotep I.

The remarkable thing about this song is that it is wholly cheerful. A tranquil acceptance of death and a firm belief in survival beyond the grave are combined with a healthy joy of living, which is untouched by melancholy pondering. The gloom of the Antef song, already subdued in Neferhotep I, has totally disappeared. One can well imagine the man Khai-Inheret visiting his tomb—and as an overseer of necropolis workers he had ample opportunity of doing so—and priding himself on the beautiful song which adorns it. And surely he could take the "make-merry" advice to heart while holding none but the most orthodox opinions about the hereafter. With the problems which led the author of the Antef song to skepticism and troubled the spirit of Neferhotep thus ignored, the song is an entirely unified and homogeneous composition.

6. SONG OF PASER

The song comes from tomb No. 106 at Thebes. It is recorded on the north face of the third pillar from the north in the hall. The accompanying scene is pre-

served only in part. Above, Paser is seated at table; below is the harper and the song. The tomb dates from the reigns of Seti I and Ramses II. The song is published here for the first time. The text (see Pls. III, V) is based on a hand copy and photographs. The shading gives only the approximate, not the exact, length of the lacunae, which unfortunately are considerable.

(1) Thus speaks the musician of Maat who is in the tomb west of Thebes of the prefect and vizier Paser the justified; he says:——

[Bodies pass away]^a (2) since the time^b of the god,

Others come in their places.

They that built houses and pyramids likewise Remain in ——^c

(3) Great and excellent ones who follow Onnofris,

Turn your attention to the prefect, Behold he^d has come in peace.

Give —— (4) Maat,

He offers her to you greatly,

She is beside his breast,

She does not swerve from him any day.

Make holiday, Paser!

[Do not weary thereof]^e ——

[Follow]^f (5) thy heart while it exists,

Make holiday, O lord!

Forget all evil,

Bethink thee of happiness^g

Till comes [that day of landing].^h

[Make] holi[day], thou 'praised one', (6) . . . ⁱ

Let thy heart be glad, greatly, greatly!

Anoint thee with fine oil of Heliopolis,

Prime oil of the god's body.

Behold ——

Make holiday, O lord!

Lo, every good thing (goes) (7) to thy successor,

(But) thou sailest with the good wind of righteousness.^j

Make for thee ——

—— in it forever.^k

Make holiday, thou just!

[As] (8) the god loves Truth

And he sets her before thee,

Bread, beer, wine, and ointment 'to[gether]' shall be ['before thee']

[Remember] thou (9) that day of "come thou!"

To drag thee to the West,

—— in skins (10) of the panther,^l

They pour libation to the ground,

Their gifts are on the offering table and on ——

Make holiday, verily!

(11) Increase the happiness to perfection,^m

For Fate does not cease [to reckon] his days,ⁿ

And what has been summed up (12) for their hour,

There is no adding to it.

None that have gone have come back.





Make holiday ——

Thou hast become (13) ——

Thou being in the favor of the king

—— Horus Who Loves Truth.

^a Restored according to Neferhotep I, l. 2, and Khai-Inheret, l. 3.

^b The writing   for *rk* is an error easily made when copying from the hieratic, where  and  are similar.

^c The general content of the phrase is probably similar to Khai-Inheret, ll. 4-5: the house-builders rest in their tombs, or "in the west" (*im̄i wr̄t*); cf. Neferhotep II, l. 7.

^d Taking *mk st* to be for *mk šw*; but perhaps *hr* has been omitted after *mk st*, meaning "they say: welcome in peace."

^e Part of *wr̄d* is visible, and see Khai-Inheret, l. 8.

^f Restored according to the Antef song, l. 9; *wmn.f* might be a mistake for *wmn.k*.

^g This spelling of *ršw*; "happiness," occurs elsewhere; see Davies, *The Tomb of Neferhotep at Thebes*, Pls. XXXVI-XXXVIII, and Louvre A 74.

^h Restored after Neferhotep I, l. 9. The length of the lacuna is adequate.

ⁱ I do not understand *ir šwt*.

^j This is a beautiful pun on *mšw*, "wind," and *mšt*, "righteousness"; it is also an unusual metaphor for which I have no parallel. But see the "fair wind" in Book of the Dead, 15, 45 (Budge). Note also that the sign of the sail does double duty as determinative of *mš*, "sail," and ideogram of *mšw*, "wind."

^k This phrase might be restored according to Khai-Inheret, ll. 5-6, but the same words can not be used because of the signs visible after *ir n.k* and the *im.f* in place of *im.s*.

^l Cf. Neferhotep I, l. 14.

^m Cf. Neferhotep I, l. 28.

ⁿ Restored after Neferhotep I, l. 16.

In spite of its fragmentary state, the nature of this text is recognizable. It represents a striking case of patchwork, an eclectic mixture of motifs drawn from the various "make-merry" songs. It also borrows from the other harpers' songs. Transitoriness in the shortened version in which it occurs in the song of Khai-Inheret is still the first theme. The address to the gods or deified dead "who follow Onnofris" is reminiscent of the opening of Neferhotep II, while the "come-in-peace" formula recalls Neferhotep III, line 5. "She is beside his breast, etc.," here apparently said of the goddess Maat, is a variation of the formula concerning the heart or the ka.⁷⁷ The phrases "forget all evil, bethink thee of happiness, etc.," are identical with Neferhotep I, line 9, and similar to Khai-Inheret, lines 13-14. That all the good things of life remain for the successor is a variation of Antef's "you can't take it with you."⁷⁸ The reminder of the day of burial follows the pattern of Neferhotep I, line 14. The phrase "increase the happiness" occurs similarly both in Antef and Neferhotep I. "None that have gone have come back" is familiar from the Antef song. Additional parallels have been listed in the notes.

The "make-holiday" phrase occurs seven times in this text and thus becomes a sort of refrain. But, of the actual description of the holiday, only a few elements have remained, and they are scattered throughout the text. The mortuary motifs are more prominent here than they were in the other "make-merry" songs; yet the "make-merry" advice has retained its secular meaning.

A specific attitude or governing idea which would hold the song together is not discernible. No other harper's song has

done so much borrowing and achieved so little unity. The text is a typical latecomer in which the once fresh ideas have become clichés.

The song of Paser is the last in the line of "make-merry" songs. The remaining harpers' songs do not display the "make-holiday" or any of the motifs characteristic of the "make-merry" songs. They are devoted to reassuring the tomb-owner about his fate in the hereafter and are wholly within the tradition of mortuary literature.

7. SONG OF PIAY

The song comes from tomb No. 263 at Thebes, where it is recorded on the left door reveal, and is published here for the first time. The scene shows the harper facing the seated figure of the deceased. The tomb dates from the reign of Ramses II. The reading is based on a photograph (see Pls. IVa, VIa).

(1) Thus speaks the master of musicians who is in the tomb of the scribe Piay; [he says]:

(2) Thou awakenest in peace in thy tomb,
Thy prayers have been heard,
And thou art called.

Thy son 'is praised' ———

——— (3) thy house upon earth.

Thou followest thy god in the district of Peker
At his beautiful feast of the Neshmet bark.^a

There is made (4) for thee a great sacrifice
'out[side]^b of thy tomb,

Thy soul comes forth at the voice of the ka-priest^c

To (5) receive the things laid down for it.

Thou [hear]est the prayers of the children of thy house.

(6) One who sees Re at dawn,
Thou goest to rest when Atum is at rest.

——— Field (7) of Reeds

With (8) the food of the gods.

Thou minglest (9) with the Followers of Horus,
Thou art one of them.

(10) Thou hearest ——— on this day,
The scribe Piay.

⁷⁷ See above, p. 189, n. c.

⁷⁸ See Harris 500, VII, 2, and above, p. 193, n. 1.

^a Read *m hb.f nfr n nšmt*; the *n* of the genitive has coalesced with the *n* of *nšmt*. For the same and similar cases of coalescence see Erman, *ZÄS*, LVI, 61. For the whole passage cf. *šms wnn nfr m w plr m hb.f nfr n nšmt*, Brit. Mus. Stela No. 295, 3; also Brit. Mus., Stela No. 170, 6. The feast of the Neshmet bark and the district of Peker are mentioned in countless funerary inscriptions; e.g., Louvre C 3, C 54, C 69, C 166, C 232; Brit. Mus. Stela No. 155. See also Schäfer, *ZÄS*, XLI, 107, for a discussion of Peker.

^b Read *m-rw.ty*?

^c There is room for an *f* after *hm-k³*; so perhaps "his ka-priest" as in Piehl, *Inscr. hierogl.*, I, 121k: *pr b³.i hr hrw hm-k³.f r šsp h.t w³h n.f* (altering Piehl's $\overline{\text{X}} \overline{\text{X}} \parallel$ to $\overline{\text{X}} \overline{\text{X}} \overline{\text{X}}$).

This song shares its phraseology with the mortuary inscriptions on stelae and tomb walls. Only the form of delivery is different. Here it is the harper who speaks and affirms that the favors which the owner of the mortuary inscription prayed for have been granted, while the other class of texts gives the prayers themselves. Typical mortuary motifs are the wishes to attend, as formerly in life, the feast of Osiris in Peker, also to see the sun at his rising, and to become one of the followers of Horus. It is noteworthy that these particular motifs are very common in the Middle Kingdom. In other words, we do not meet here with motifs characteristic of the New Kingdom mortuary texts. Thus there is the suggestion of an archaizing tendency in our song.

The remaining three harpers' songs form a closely related group and will, therefore, be discussed together.

8. SONG OF NEFERRENPET

The song comes from tomb No. 178 at Thebes. Its owner, Neferrenpet, also bears the name Kenro, and the latter name is used in our text. The song is recorded on the south wall of the hall. The harper faces the deceased couple, who are seated in a kiosk and play a game. The tomb dates from the reign of Ramses II. For the text see Varille's edition.

(1) Thus speaks the musician who is in the tomb of the Osiris, the scribe of the god's income, scribe of the treasury of the estate of Amun, (2) Kenro the justified, he says:

Thou callest to heaven,
Thy voice is heard,
And Atum answers thee.

(3) Thou raisest thy voice as godly (4) heron,^a
And he (5) whose name is hidden greets^b
(thee).

Thou turnest (6) over on thy right side,
Thou placest (7) thyself on thy left side,^c
Thou sittest down (8) on thy seat ———^d

^a The heron or "phoenix" of later times was believed to have power of speech; see Book of the Dead, 77, 7; 125, 9 (Ani); 145, 77 (Budge).

^b *wšd tw* has coalesced into *wšddw*; cf. Tjanerfer, I, 3.

^c This motif has a long tradition in which two ideas seem to be combined; one is the resurrection, the other is the deceased raising himself from his sleep to partake of the food offered him; see *Pyr.* § 730a, and Sethe's commentary to the passage; it recurs in *Coffin Texts*, I, 6b-c; I, 234a; Book of the Dead, 68, 13-14; 152, 10 (Naville).

^d Perhaps the "great seat," i.e., the throne of the gods on which the dead wishes to sit (cf. *Pyr.* 391c); but an additional element must have been present in the text, for there is too much space between *št.k* and the final *r* for *wr* or *wr.t* alone.

9. SONG OF PENNIUT

The song comes from tomb No. 331 at Thebes, where it is recorded on the left door reveal. The harper faces the deceased couple; there is no offering table. The tomb is Ramesside. For the text see Varille's publication.

(1) Thus speaks the musician who is in the tomb of the first priest of Month, (2) Penniut the justified:

How sweet is the dwelling in Thebes,
The heart is in joy every day!^a
On the day ——— (3) ——— thy arms to him
When he comes to thee.
Come ——— (4) ——— to him
When he comes to thee;
So shall one say (5) [concerning thee].^b
Thou praisest Amun,

Thou seest Re at his rising,
 Thou givest (6) praise in the early morn,
 Every day without ceasing.^c
 Thou flyest^d (7) to heaven like the noble vultures,
 Thou raisest thy voice like the godly (8) heron,
 Atum answers thee.
 For the ka of the Osiris, (9) the first priest of Month,
 (10) Penniut the justified (11) who is called
 (12) Sunra.

^a For this praise of Thebes cf. *w3d.wy mn m hmw.s* of the *Leyden Hymn to Amon*, VI, 10 (ZÄS, XLII, 41), which refers to the happiness of burial in Thebes. The passage in the harper's song has the same funerary significance.

^b Restore *r.k.*

^c For this passage cf. *di.f m33 itn dgg i'h nn 3bw r' nb*, *P. of Ani*, Pl. I, 17.

^d Cf. *hy.i m bik*, Book of the Dead, 17, 74 (Naville).

10. SONG OF TJANEFER

The song comes from tomb No. 158 at Thebes, where it is recorded on the left door reveal in front of the harper's figure. For the text see the publication. Improved readings, based on a hand copy and a photograph are given in our notes.

(1) Thus speaks the musician who is in the tomb of the Osiris, the priest of Amun, Tjanefer the justified:

Thou callest (2) to Re,
 Khepri hears
 And Atum answers thee.
 The Lord of All does (3) the things which
 please thee,
 And he whose name is hidden greets thee.
 The sun shines (4) upon thy breast,^a
 He illuminates thy cave.
 The west wind (comes) straight to thee (5)
 to thy nose,
 The north wind blows^b for thee.
 Thy mouth is guided to the breast of the (6)
 Hesat-Cow,^c
 Thou art reverent at the sight of the sun-disc,
 Thou cleanest thyself in (7) divine water,^d
 Thou minglest with them who adore (the
 sun at dawn).

Thou takest thy forms (8) as thou mayest
 have wished,
 Thou givest praise to the Rich-in-Forms,^e
 They are complete for thee, (9) all of these
 (forms).

All thy limbs are whole,
 Thou art justified before Re
 And established before (10) Osiris.

Take the offerings of excellence
 That thou mayest eat as on earth.

Thy heart is glad (11) in the necropolis,
 Thou joinest thy tomb in peace.

The gods of the underworld say to thee:
 "Wel[come] to (12) thy ka in peace."

All the people who are in the necropolis,
 They are given to thee as reward.

(13) Thou art called to say the prayers of a
 Great One

So that thou mayest establish right,
 Osiris Tjanefer the justified.


^a Cf. *wbn r' n b3 pn hr šnbt.f*, Book of the Dead, 100, 8 (Naville); see also *Coffin Texts*, I, 254d-e, with "cheeks" instead of "breast"; *Urk. IV*, p. 117, l. 4; p. 148, l. 14; p. 499, l. 10.

^b I follow *Wörterbuch*, IV, 478, in taking *šm^c* as being the verb "to sing," here referring to the sound of the wind. Varille has "Le vent du sud se fait pour toi un vent du nord," which is ungrammatical; note also that *ršw* (not *šm^c*) is the counterpart of *mhy.t* in *Coffin Texts*, II, 389 ff.; also *Pyr.* § 554.

^c Cf. Florence Stela No. 1617; *Pyr.* § 381a-d.

^d Cf. *Pyr.* § 1140a-b.

^e Cf. *33w hpr.w m pt m t3*, Cairo Stela No. 34057, 1; *33w hpr.w 3 irw.w* applied to *Wnn-nfr* Harakhte in Book of the Dead, 15, 1 (Hymn to Osiris); see also Book of the Dead, 147, 2 (Naville); and *Coffin Texts*, I, 324.

^f Probably to be read [g]  *k3.k*.

The three last songs are related to each other not merely through a general similarity of content but because they use the same vocabulary. The song of Piay shares their tendency but differs considerably in its phraseology. Thus, while all four texts can be grouped together when compared to the "make-merry" songs, a distinction needs to be made between them. Whereas the song of Piay resembles the mortuary prayers from tombs and stelae, the last

these texts have more in common with the coffin texts and the funerary papyri.

The songs of the Antef-Neferhotep type discussed problems which concerned everyone. They contain argument and advice on a scale and in a manner which suggest that they represent reflections which everybody was invited to share. Not so our last four songs. Their whole concern is with the well-being in the hereafter of the one particular individual to whom they address themselves. No other audience is assumed. Thus the scope and purpose of harpers' songs has been narrowed, and the songs again assume the function which they had in the Middle Kingdom prior to the development of the "make-merry" songs: They are mortuary texts.

However, the "make-merry" songs of the kind represented by the songs of Khai-Inheret and Paser, that is, the late type which has been purged of reflective skepticism, continue alongside the mortuary songs. And it is still possible to have more than one song in one tomb; for the tomb of Tjanefer contains a second harper's song, and this one displays the "make-holiday" motif. The text is a hopeless fragment; but it must have been a "make-merry" song.

V. THE PLACE OF HARPERS' SONGS IN EGYPTIAN LITERATURE

It will have become clear that harpers' songs cannot simply be classified as being of two kinds, worldly and funerary, as has been done in the past. The situation is much more complicated. The different songs have different antecedents and, in addition, they have an internal development.

The development of the "make-merry" songs can be summarized as follows. They begin with the Antef song, which, though extant in New Kingdom copies only, originated in the Middle Kingdom. That

song consists of a melancholy reflection on the transitoriness of life coupled with skepticism concerning immortality and urging enjoyment of the fleeting moment. Its deprecation of death recurs in the "Dialogue of the Man Weary of Life," but the situation there is quite different and its solution is the opposite of Antef's. Nor is the melancholy of our song akin to the lamentations of the *Admonitions* and similar prophetic writings. For there it is actual social and political misery which has led to pessimism; but the value of life as such is not questioned. As to the teachings of the type of *Merikare*, wherever they deal with the relation of life to death their attitude is positive and pious and thus contrary to the Antef song. Life on earth is short, says the sage who instructs King Merikare, but existence in the beyond is eternal.⁷⁹ Nevertheless, in content as well as in form, the Antef song is related to these reflective writings known as wisdom literature; but its attitude is unique and its advice runs counter to the letter and spirit of that literature.

The "make-holiday" motif did not originate with, and is not peculiar to, the Antef song. It is the main theme of the banquet texts, orchestra songs as well as prose speeches and legends, which are recorded in the tombs.⁸⁰ Although most of this material comes from the Eighteenth Dynasty, there is sufficient evidence to show that the motif antedates the New Kingdom. There is the "make-holiday" song from the tomb of Sebeknekht of the Second Intermediate period⁸¹ and, in addition, the "holiday" without "make" frequently occurs in Middle Kingdom in-

⁷⁹ *Merikare*, ll. 55-57; *ibid.*, ll. 123-24 (transitoriness of the body).

⁸⁰ I do not know of any such "make-holiday" texts with scenes other than of feasting. But these scenes are not restricted to tombs; they occur even on objects of daily use, as, for instance, on a little toilet box in the Brooklyn Museum.

⁸¹ See above, p. 191.

scriptions in a manner which reveals that it was a fixed topos. The term *hrw nfr* had a wide range of meaning. In addition to "holiday" or "feast day," it could denote any kind of day considered pleasant or beneficial. In the tomb of Paheri *hrw nfr* refers to a day of fine weather,⁸² while in the mortuary literature the term is used euphemistically to designate the day of death⁸³ or the day of judgment in the hereafter.⁸⁴ But the more specialized meaning "holiday" is the most common.⁸⁵

It is by virtue of the "make-holiday" motif that the orchestra songs are related to the harpers' songs. But in the orchestra songs the "make holiday" is not the result of any melancholy contemplation of death, for the simple reason that the "holiday" has been transposed to the hereafter: it is in the beyond that the feast takes place. In the Antef song, however, and in those harpers' songs which follow the same pattern, the "make-merry" advice is addressed to the living and is based on fear of death.

The worldly spirit of the Antef song, its relation to didactic literature, and, finally, the fact that it has a funerary introduction which does not harmonize with the main body of the text—all lead to the conclusion that at the time of its inception the song was not intended for a tomb. Its recording in the tomb-chapel of a King Antef was secondary. At that time the mortuary introduction, "Flourishing indeed is this good lord, etc.," was added. Prior to its recording in the royal tomb-chapel the song may have been sung at secular banquets, as is so often assumed; but there is no shred of evidence for that assumption. Having become a tomb text,

the Antef song brings about a broadening of the repertoire of harpers' songs, which heretofore had been simple mortuary texts. But although the Antef song is the model for all harpers' songs of the "make-merry" type, none of them has retained its skepticism. The very fact that harpers' songs are tomb songs accounts for the transformation in the course of which the "make-merry" songs become pretty songs without problems. As such they could linger on indefinitely and could survive any amount of bigotry.

The tomb of Neferhotep represents the culmination in the development of harpers' songs. Three lines of development meet here. Three different songs, each with its own distinctive background, set forth their interpretations of death. Neferhotep I is a "make-merry" song which still shows some of the original skepticism. Neferhotep III is wholly pious and traditional. Neferhotep II praises the might and majesty of death in a manner reminiscent of the laments on death and thus reveals that it is embedded in yet another literary tradition. For such laments are attributed either to mourning relatives⁸⁶ or to the dead who himself bewails his lot.⁸⁷ In these laments the region of the dead is described as a land of darkness and silence. But Neferhotep II sings the triumph of death in a more positive spirit: life is short and fleeting as a dream; death is inescapable. But existence in the beyond is eternal. These motifs, which are set out calmly, recur in the same sober spirit in the didactic literature.⁸⁸ Thus Neferhotep II with its multiple literary tradition contributes a new note to harpers' songs.⁸⁹

⁸² Tomb of Nefersekhr, ZÄS, LXII, 73 ff.

⁸³ Tylor and Griffith, *The Tomb of Paheri*, Pl. III.

⁸⁴ Book of the Dead, 178, 11; with *nfr* as verb: Florence Stela No. 1774.

⁸⁵ *Coffin Texts*, I, 10f; 19a.

⁸⁶ Some Middle Kingdom examples are: Brit. Mus. Stela No. 1049, l. 4; *Eloquent Peasant*, l. 111; *Lebensmüder*, l. 68.

⁸⁷ Book of the Dead, chap. 175; cf. Kees, *Totenglauben und Jenseitsvorstellungen der alten Ägypter*, p. 307; see also ZÄS, LV, 55.

⁸⁸ *Merikare*, ll. 55-57; *Max. d'Antii*, 4, 2 (ZÄS, LXXII, 76).

⁸⁹ The description of the might of death on the Louvre stela C 218 (Pierret, *Recueil d'inscriptions*, I, 137; especially ll. 4-5) could be considered as depend-

ently, there exist in the Nineteenth and Twentieth Dynasties harpers' songs which are related to the mortuary literature of the type of the Book of the Dead. They guide and console the dead who begins his journey into the beyond and assure him of the exalted destiny which he was anxious to secure by prayer and spell. They are a kind of liturgic response to the mortuary prayer. This purely funerary function relates them to the early harpers' songs of the Middle Kingdom. Thus harpers' songs end where they began.

Some of the motifs of harpers' songs linger on in various contexts throughout the late period. Transitoriness of life and of material monuments, described in direct allusion to the Antef song, is contrasted with the durability of literary fame in the very remarkable passage of the Ramesside papyrus Chester Beatty IV, verso 2,5.⁹⁰ Reference to transitoriness is coupled with the "make-merry" advice in the Ptolemaic tomb of Petosiris,⁹¹ where the exhortation is, of course, conceived in the pious spirit of the late "make-merry" songs. And, finally, at the very end of Egyptian history, there is the mortuary stela of Taimhotep with a "make holiday" followed by a lengthy lament on death and the land of darkness.⁹²

There are then four distinct literary strata which underlie the development of harpers' songs: (1) mortuary prayers from stelae and tombs, including laments; (2) reflective and didactic wisdom literature; (3) orchestra songs employing the "make-holiday" motif; and (4) funerary spells and invocations as embodied in Pyramid

Texts, Coffin Texts, and the Book of the Dead.

The language of the Middle Kingdom harpers' songs, including the Antef song, is classical Middle Egyptian. The few Late Egyptian forms in the Antef song, such as the negation *bw* in Harris 500 and *bn* in the Leyden text, cannot be used to assign the song to the Seventeenth rather than to the Eleventh Dynasty,⁹³ for they can have been substituted by the New Kingdom scribes who made the two copies. In the later harpers' songs the language is the peculiar petrified Middle Egyptian with its sprinkling of Late Egyptian spellings and idioms which was in use for religious and official monuments throughout the New Kingdom.

In setting and in general purpose harpers' songs are uniform. The tomb or the mortuary stela is their place and death is their theme. Their pictorial context is in most instances either the ritual offering-table scene or the funerary banquet. In the few instances in which a different scene is depicted the funerary nature of the song makes the mortuary character of the context a certainty. Hence the function of the harper in all the contexts which we have is clearly funerary. This does not mean that secular harpers' songs did not exist. But the songs that we possess cannot be claimed for the secular repertoire.⁹⁴

The outstanding characteristic of harpers' songs is the diversity of content within the uniformity of setting. Contrary to other classes of Egyptian literature, they

ing on the same sources from which Neferhotep II has drawn; but it is more likely that the text is directly dependent on Neferhotep II.

⁹⁰ Cf. Gardiner, *Hieratic Papyri in the British Museum* (3d ser.), Vol. I: *Text*, pp. 38-41.

⁹¹ Lefébvre, *Le Tombeau de Petosiris*, II, 90, and I, 161.

⁹² Brit. Mus. Stela of year 42 B.C., Brugsch, *Thesaurus*, p. 926.

⁹³ Erman, *The Literature of the Ancient Egyptians*, p. 177, assigns it to the end of the Middle Kingdom for just that reason; so also Kees, *Totenglauben*, p. 414. Gardiner calls it an Eleventh Dynasty text (see *Hieratic Papyri in the British Museum* [3d ser.], Vol. I: *Text*, p. 41).

⁹⁴ The harp was the religious instrument par excellence. A few instances where this is evident are *Recueil de travaux*, XIII, 1; *Urk.* IV, p. 174; Papyrus Chester Beatty, No. IV, recto 7, 3. See also Schott, *Der Gott des Harfenspiels in Mélanges Maspero*, pp. 457 ff. But the harp also occurs as a secular instrument (see *Piankhy Stela*, I, 134).

were not bound to adhere to one standard repertoire. This freedom they owe to the fact that a harper's song was always an adornment, never a necessity. The success of the journey into the beyond did not depend on the song of the harper in the manner in which it depended on the prayer and the spell. Hence the songs could branch out and develop in different directions. Thus they became the receptacles of various trends of thought and came to reflect the changes in concepts and beliefs which took place in the course of time. They mirror the simple belief in survival as well as the most elaborate concepts of eternal bliss. They reflect the orthodox and the rebellious, the pious and the skeptic, trends of thought. Love of life, fear of death, and confidence in immortality all find their expression in the songs of the harpers.

EPILOGUE

It has been customary to compare the "pessimism" or "skepticism" of the Antef song to similar attitudes expressed in the literatures of other peoples.⁹⁵ References are made to Ecclesiastes, Epicurus, Horace, Omar Khayyam, and others. It is natural that such parallels should occur to the mind. For we have in the Antef song one of the oldest treatments of the themes of death and transitoriness, viewed from a purely human standpoint without reference to superhuman powers and without faith in survival. But there is little value (besides the purely subjective satisfaction gained from the play of association and comparison) in quoting poets as remote from the Egyptian scene as Horace and Omar Khayyam. For their contemplation of death contains so many new elements of thought and mood that the comparison with the Antef song is bound to be extremely vague, if not misleading. Only Mesopotamian and Hebrew literature are

sufficiently close to Egypt in time and space to make the comparison fruitful.

These are the passages that can be considered parallels to the Antef song:

Gilgamesh seeking eternal life after having witnessed the death of his friend Enkidu is counseled by one of the deities:

"Gilgamesh, whither runnest thou?

Life, which thou seekest, thou wilt not find.

When the gods created mankind

They allotted to mankind Death,

But Life they withheld in their hands.

So Gilgamesh, fill thy body,

Make merry by day and night,

Keep each day a feast of rejoicing!

Day and night leap and have thy delight!

Put on clean raiment,

Wash thy head and bathe thee in water,

Look cheerily at the child who holdeth thy hand,

And may thy wife have joy in thy arms!"⁹⁶

At first sight this is a close parallel. Yet the differences are considerable. The Gilgamesh passage says that it is by will of the gods that death has been allotted to man. In the Antef song the gods are ignored. Second, and this is most important, for the Gilgamesh epos life after death is a reality, though an unpleasant one: the dead lead a dreary life in the netherworld. The Antef song has doubts about any form of survival. These two instances should suffice to show that the resemblance, though remarkable, is by no means close enough to establish any claim of influence of the one composition upon the other or even of spiritual kinship.

As to Hebrew literature, several verses of Ecclesiastes offer parallels, especially verses 1-12 of the first chapter. The remarks on the succession of generations and on the rising and setting of the sun (vss. 4 and 5) are strikingly similar to lines 2-4 of Neferhotep I, and the theme of total oblivion to which all human activities are doomed (vs. 12) recalls both Antef

⁹⁵ See above, p. 194.

⁹⁶ W. E. Leonard, *Gilgamesh Epic of Old Babylonia*, p. 49.

and Neferhotep I. Furthermore, we have in Ecclesiastes the exhortation to enjoy the good things of life (2:24, 5:18-19, 9:7-10). But, of these three "make-merry" passages, only the last comes close to the Antef song, for only there is the "make-merry" advice directly linked to the idea of death and the emptiness of the grave. Furthermore, when one views Ecclesiastes as a whole, one cannot fail to realize that its spirit is entirely different from that of the Antef song. The Preacher's theme is not death, but the injustice, the folly, and the misery of which life is full. Nevertheless, his faith is unshaken, and it is through his faith that he arrives at a working solution in his attitude toward life. Ecclesiastes is, therefore, not a pessimistic book. And, as in the case of the Gilgamesh epos, the resemblance of individual passages to the songs of Antef and Neferhotep should not be unduly stressed.

The attitude of the Antef song is one of melancholy skepticism rather than pessimism. For pessimism is a negative attitude toward life, whereas the Antef song is concerned with death and the shadow it casts upon life, which in itself is good. Therefore, although we have classed the Antef song as belonging to the pessimistic wisdom literature of the Middle Kingdom, we should not overlook the different attitudes within this group of texts. There is one, and only one, Egyptian text which reveals a clear, sustained, and radical pessimism; that is the "Dialogue of the Man Weary of Life," which rejects life and glorifies death. The Egyptian prophetic literature and the teachings of Egypt's sages and kings are shot through with pessimistic remarks. But these remarks are due to the observation of specific social and political miseries and do not amount to any rejection of life as such.

If we turn to Babylonia in our search

for skeptic and pessimistic thought comparable to Egypt, we find the following: There is no Babylonian counterpart to the skepticism of the Antef song. Gilgamesh is not a skeptic. The poem of the Babylonian Job, *ludlul bel nemeqi*, is a refutation of skepticism and pessimism—a theodicy.⁹⁷ The same is true for the Babylonian "Dialogue of Two Friends."⁹⁸ However, there exists, just as in Egypt, one composition which expresses a true pessimism, that is the so-called "Dialogue of Pessimism."⁹⁹ Here we have pessimism in its purest form, more comprehensive and more radical than in the Egyptian "Dialogue of the Man Weary of Life." For in the Egyptian text the pessimism is perhaps the result of some specific personal misery or grievance. But the Babylonian, who has come to weary of life, is a nobleman who has access to all its riches and satisfactions.

Our intention in making this rapid, and necessarily superficial, comparison of certain aspects of Egyptian, Hebrew, and Mesopotamian thought was to point out the differences rather than the similarities. For our concern is not with the general resemblances of these three cultures but with the specific character of one branch of Egyptian literature and hence with the distinctive voice of ancient Egypt.

APPENDIX

BIBLIOGRAPHY OF HARPERS' SONGS FROM MONUMENTS OF THE NEW KINGDOM

1. THE ANTEF SONG

- a) Papyrus Harris 500, VI, 2—VII, 3 (*Brit. Mus. Pap.*, No. 10060).

Published:

Goodwin, *TSBA*, III (1874), 380-81 and 385-87.

⁹⁷ Cf. Langdon, *Babylonian Wisdom*, pp. 3 ff.

⁹⁸ Landsberger, *Die babylonische Theodizee*, ZA, XLIII (1936), 32.

⁹⁹ Langdon, *op. cit.*, pp. 67 ff.

Budge, *Facsimiles of Egyptian Hieratic Papyri in the British Museum* (2d ser.), Pls. XLV-XLVI, pp. 23-24.

Maspero, *Etudes égyptiennes*, I (1886), 178-84.

Müller, *Die Liebespoesie der alten Ägypter*, Pls. XII-XV, pp. 29-30.

Translations (selected):

Maspero, *Etudes de mythologie*, III (1898), 407-8.

Erman, *Die Literatur der Aegypter*, pp. 177-78.

Kees, *Totenglauben und Jenseitsvorstellungen der alten Aegypter*, pp. 414-15.

Breasted, *Development of Religion and Thought in Ancient Egypt*, pp. 182-83.

———, *The Dawn of Conscience*, p. 163.

Weill, *Egyptian Religion*, III (1935), 127-28.

- b) Tomb of Paatenemheb from Saqqara now in Leyden.

Published:

Leemans, *Monuments égyptiens du Musée d'antiquités des Pays-Bas à Leide*, Vol. III, Pl. XII (No. K 6).

Boeser, *Beschreibung der aegyptischen Sammlung . . . in Leiden*, IV, Pl. VI.

Müller, *Liebespoesie*, Pl. XVI.

2. NEFERHOTEP I

Published:

Dümichen, *Historische Inschriften alt-ägyptischer Denkmäler*, II, 40.

Stern, *ZÄS*, XI (1873), 58-63 and 72-73.

Maspero, *Etudes égyptiennes*, I (1886), 172-77.

Bénédict, *Mémoires de la Mission Française*, V (1894), Pl. IV, p. 529.

Müller, *Liebespoesie*, Pl. I, pp. 31-33.

Translations (selected):

Brugsch, *Die Aegyptologie*, p. 162.

Maspero, *Etudes de mythologie*, III (1898), 405-6.

Erman, *Literatur*, pp. 314-15.

Breasted, *Development*, pp. 185-87.

———, *Dawn of Conscience*, pp. 166-67.

Weill, *Egyptian Religion*, III (1935), 129-30.

3. NEFERHOTEP II

Published:

Dümichen, *Historische Inschriften*, II, 40a.

Maspero, *Etudes égyptiennes*, I (1886), 164-66.

Bénédict, *Mém. Miss. Fr.*, V (1894), Pl. II, pp. 505-7.

Gardiner, *PSBA*, XXXV (1913), 165-70.

Translations (selected):

Erman, *Literatur*, pp. 316-17.

Roeder, *Urkunden zur Religion*, pp. 60-61.

Weill, *Egyptian Religion*, III (1935), 130.

4. NEFERHOTEP III

Published:

Dümichen, *Historische Inschriften*, II, 40 a.

Maspero, *Etudes égyptiennes*, I (1886), 167-71.

Bénédict, *Mém. Miss. Fr.*, V (1894), Pl. II, pp. 507-10.

5. KHAI-INHERET

Published:

Bruyère, *Fouilles de l'Institut Français*, VIII (1930), Fasc. III, Pls. XXII, 3 and XXIII, p. 70.

Translation: None.

6. PASER

Previous publication: None.

7. PIAY

Previous publication: None.

8. NEFERRENPET

Published:

Varille, *Trois nouveaux chants de harpistes*, *BIFAO*, XXXV (1935), Pl. III, pp. 157-58.

9. PENNIUT

Published:

Varille, *op. cit.*, Pl. III, pp. 158-59.

10. TJANEFER

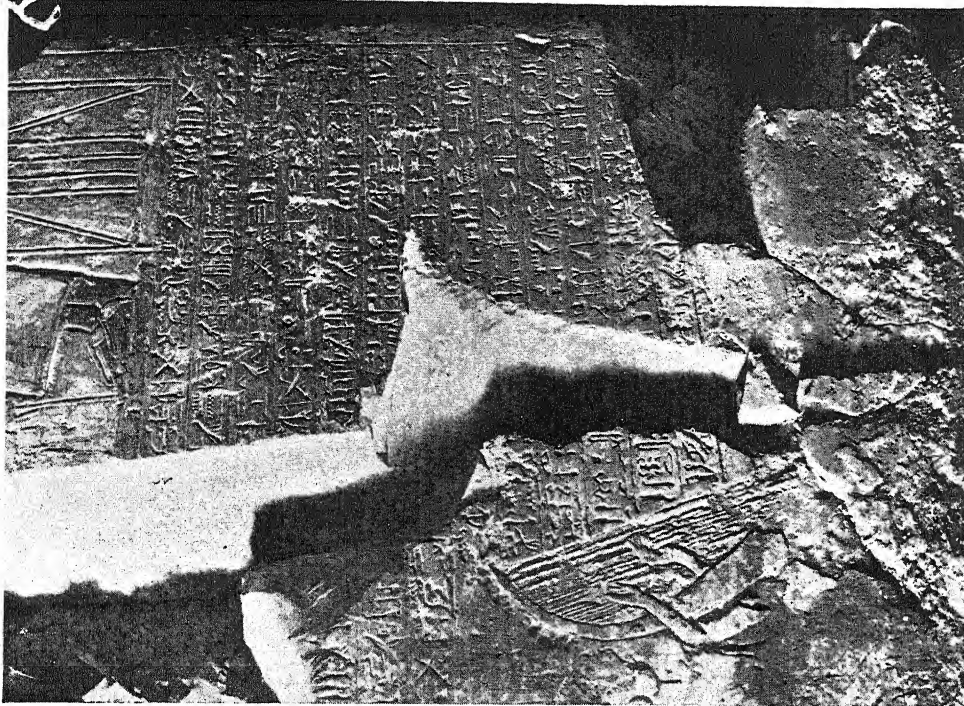
Published:

Varille, *op. cit.*, Pl. I, p. 154-57.

[illegible]

SONG FROM TOMB OF PASER, THEBES NO. 106, ON PILLAR IN HALL.





HARPER AND SONG FROM TOMB OF PASER, THEBES NO. 106, ON PILLAR IN HALL (PHOTOGRAPHS BY K. C. SEELE AND SIEGFRIED SCHOTT)

PLATE VIa



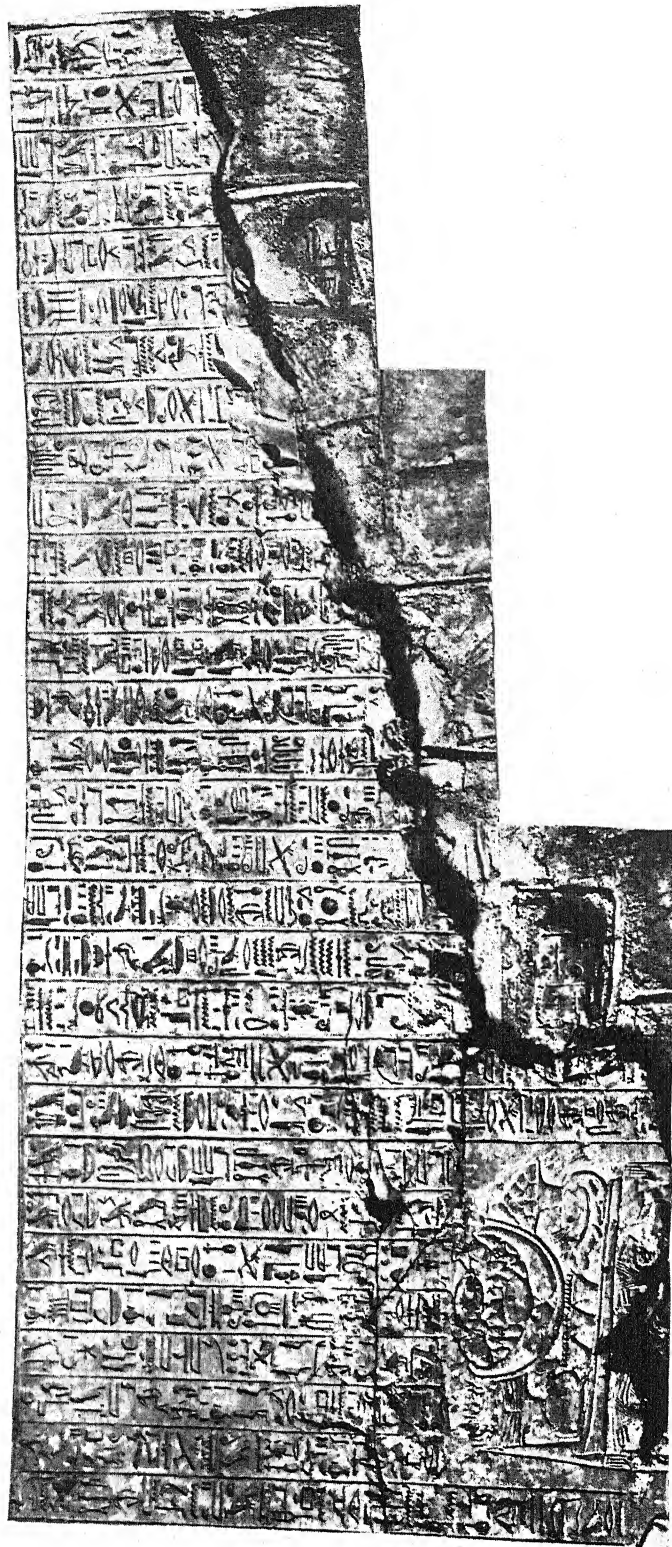
HARPER AND SONG FROM TOMB OF PLAY, THEBES No. 263, LEFT DOOR REVEAL (PHOTOGRAPH BY K. C. SEELE)

PLATE VIb



HARPER AND SONG FROM LEYDEN STELA 71

PLATE VII



TEXT OF NEFERHOTEP I: TOMB OF NEFERHOTEP, THEBES NO. 50, NORTH WALL OF PASSAGE (PHOTOGRAPH BY K. C. SEELE)

BOOK REVIEWS

The Relevance of the Prophets. By R. B. Y. Scott. New York: Macmillan Co., 1944. Pp. ix+237. \$2.50.

This book had its origin in a series of lectures given at the Summer School for Clergy at MacDonald College, Quebec. In assessing the book, this must be kept in mind. It was intended to inspire the clergy to a more active use of the prophetic writings as source material for present-day sermons. It was not intended to form a basis for a discussion of controversial points of view.

The title of the book is defined in the last chapter. From it the reviewer gathers that "relevance" is purely subjective and personal in its scope and may have little relation to the ideas of the original authors. This anarchistic point of view, however, should be somewhat limited by a clear comprehension of the prophetic movement and literature according to Dr. Scott.

The first half of the book is devoted to an introduction to the study of the prophets, their origin, environment, and character. The latter half deals with the theology of the prophets, the prophets of history, the prophets and the social order, and prophetic religion. Parts of the book would amaze the prophets themselves, although it would probably please them. Students are prone to see implications in the words of their chosen teachers not conceived of by the teachers themselves. It is thus that progress is made in the realm of ideas.

The scope and plan of the book are admirable. Students will vary as to their agreement with the details. Many of the "faults" in the eyes of some will be considered virtues by other readers. It is much more valuable for a student or a scholar to study a work with which he does not agree than one with which he does. Hence, this book should be an instrument of much good in the field of biblical studies.

Like so many of its kind, this book uses the

word "ethical" profusely in its discussion of the prophetic teaching. The idea inherent in "ethics" is Greek and European, not Semitic. It involves the idea of a code of conduct freely accepted by a group of people and, as such, can only be valid in a community that accepts the idea of perfect freedom of the individual in making a choice. With the Old Testament writers who were largely theologically inclined, this is far from the case. The Deuteronomic writer very aptly puts forth the view in 6:18: "You must do what is right and good in the eyes of Yahweh in order that you may prosper." And again in 12:8: "You must not do the like of anything we are doing here today, each man everything that is right in his own eyes." To the Hebrew writer, Yahweh is a God who gives his people ordinances and imposes sanctions on those who do not keep them. He is a God who envisages destruction of those who do not keep them or who are ignorant of his laws. This state of affairs, in itself, precludes the freedom of the will. Again, to the extent that Yahweh directs the course of the world and individuals in it, man is not a free agent. It seems obvious, therefore, that the word "ethical" as relating to prophetic teaching can be used only if it is defined.

Although the author notes that the prophets are the proclaimers of the word of Yahweh and, as such, map out before the people the divine plan, he also insists that this plan is contingent upon the reactions of a free people. Had the prophets themselves held the opinion that their people could change their ways, it seems to me that they would not have been so reluctant to proclaim the message. Surely this reluctance was due to their conviction that they were uttering an inescapable judgment rather than pleading for reform. A closer study of the conditional statements in the prophets might clarify this point further. In conjunction with this study, a further scrutiny of the implications of the "Word" of Yahweh should be made. The Hebrew had a clear understanding

of the difference between thinking one's self a free creature and being a free creature. All these things are bound up in the Old Testament concept of "ethics."

The author's purpose in this book is to give its English readers a clearer understanding of the writings of the prophets. This could have been furthered considerably by including a study of such key words as "righteousness," "judgment," "mercy," and "kindness" as they are used by the prophets, for words are wise men's counters.

Dr. Scott bases considerable of his argument on the tradition which traces the prophetic teachings to Moses and the covenant between Yahweh and Israel in the desert. It is true that our author scrupulously refers to this as a tradition, but it is evidently a tradition which he accepts. According to this tradition, the Hebrews under Moses led a highly ethical but simple existence in the desert, that they held all things in common, and that each regarded the other as himself. They entered Canaan and became the dominant member in that cosmopolitan community. Here their religion became syncretized with that of the local inhabitants, and so degraded. On the other hand, the classical prophets kept the tradition of their succession from Moses for about five hundred years uncorrupted and at the opportune time began a crusade against the local fertility cults and the baalim.

Such a series of events could be possible only if the biblical tradition of the settlement of Canaan *en masse* is adopted. If, however, we adopt the idea that the Hebrew settlement in Canaan was gradual, extending over a period of a thousand years, that the number of emigrants from Egypt was few, and that these joined a larger group to make their way into Canaan from the south, there remains little room for the acceptance of Scott's covenant theory. To say that Israel became dominant in Canaan is misleading. Which of the settlements comprised Israel? One might just as well say that a certain shipload of immigrants entering the United States in the nineteenth century became dominant in that country. It is a problem to assign a limit to the time when

the inhabitants ceased to be Canaanites and became officially Israelites, for most of them came from the desert at one time or another. The locale and time of the covenant idea matter little in comparison with the idea itself.

In order to enhance the value of the prophetic teachings, Scott divests the cults of Canaan of any religious or social values. This is unfair to the prophets as it is to the cults. If we can accept the theory that the Hebrew racial history as noted in the Old Testament was a rational explanation of what must have happened in the past to account for the conditions current at the time of the historical writers, we should have little difficulty in concluding that the Hebrew religious tradition was built up in the same way.

There is no valid reason why ethical ideas should not develop from a cultic religion. According to a Ras Shamra tablet, the ideas of which were developed in the atmosphere of a thriving cult and in urban surroundings, Daniel "judges the case of the widow, adjudicates the case of the fatherless." Urukagina of Lagash, a cult worshiper, in an urban environment instituted many social reforms to the disadvantage of the ecclesiastics of the day.

The Hebrew prophets and their ancestors had lived in urban or agrarian settlements for centuries without written history books. Elijah came from an agricultural community in Transjordan, Amos from the village of Tekoa, six miles southeast of Bethlehem, Isaiah from Jerusalem, Jeremiah from Anathoth, etc. Each and all lived, moved, and had their being in cultic communities. Isaiah derived his inspiration to prophesy directly from attendance at a cultic ceremony in the temple. Hosea's language savors of a long association with the cult.

In assessing the value of a cultic ritual, we must always remember that we know only its mechanics and, perhaps, the language used. We know little of the religious emotion engendered by a sympathetic association with the ritual that welled up in the bosom of the devotees to inspire them to a better way of life. Isaiah's experience in the temple should give us to think.

Scott considers that the prophets derived

their social views from the desert, where, according to him, there was no idea of private property, the basis of all evil. Such a view seems entirely foreign to desert life. The only thing that is held in common there is the soil, which is worthless. Flocks are privately owned as long as the owner can guard them from his fellows. Surely there is no element in actual desert life from which the Hebrew reformer could derive inspiration except in so far as his own imagination could picture it.

The prophets of Israel were the products of the cult and their best advertisement. The "ethical" idealism displayed by the prophets was the result of a natural growth. The recognition of injustices is due to a development of a social consciousness. It is only as "evils" become recognized as such that we know they exist, although they may have been general for ages.

However, the importance of the origin and development of an ethical religious point of view holds a secondary position to the fact that it did develop. The book should do much to restore the works of the prophets to the attention of the pulpитеers.

W. E. STAPLES

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Toronto

The Tombs and Moon Temple of Hureidha (Hadhramaut). By G. CATON THOMPSON. ("Reports of the Research Committee of the Society of Antiquaries of London," No. XIII.) London: Burlington House, 1944. 25 s. Pp. xv+191.

This handsome folio volume presents a notable work in Arabian archeology, along with an admirable display of editing, by the explorer and author, Miss G. Caton Thompson. Her associate in her South Arabian experiences was Miss Elinor Gardner, and so the two brave ladies have followed in the paths of Miss Freya Stark. Their work in the field extended from October, 1937, to March, 1938. In addition to 184 typed pages there are 81 large plates, mostly photographic, of the remains discovered, along with maps and contours of the fields examined.

The volume is carefully arranged. Part I deals with the "Physical Setting" of the region and, in particular, with the remains of the ancient irrigation works, including a great dam, which engineering was the basis of that old civilization. Part II treats of the chief theme of the book, the Moon Temple, of which three phases of construction have been discovered. In a section on "Cultural Contacts" (pp. 150 ff.) the author has come to recognize the particular Iranian influences in the art of the old temple, and she proposes that "the Persian Empire or its Oriental Hellenistic successor may have played an even greater part" than did Greek art. The temple court includes also many additional shrines, as the ritual deposits found in them prove.

Part III treats of the cave tombs adjacent to the temple. This includes "reports" by six "experts," of which may be noted the one by Henri Frankfort on two seal stones and the exact anthropological study of the human remains by G. M. Morant. Part IV, entitled "Typology," accounts for the pottery and cups found in the tombs. Part V, "Varia," includes description of what is termed a "farmstead," described as "a mud-brick dwelling-house near the Temple, apparently a lowly farm building," a survival of interest for the light it casts with its remains on how those ancients lived. There follows description of some undated objects, axes and the like. Then comes Part VI, "Final Discussions and Some Conclusions," all soberly worked out.

The volume concludes with Part VII, "Epigraphy," contributed by Professor G. Ryckmans of the University of Louvain. This includes inscriptions in the temple area, mostly dedications to the god Sin (pp. 157 ff.); inscriptions in the tombs, personal names (pp. 177 ff.); and graffiti, almost entirely personal names (pp. 180 ff.). There are only two long inscriptions, one of twelve lines (p. 158) and one of six (p. 162). The scholar gives a meticulous study of these texts and their dialectical varieties, with full cross-references to other occurrences of words and phrases, and with notation of peculiar forms of letters and of evident errors. Pages 174-76 present a list of such

letter variations and of variant grammatical forms, especially of prefixes and suffixes. A notable practical contribution to the science of this field is stated as follows: "The Oxford Press took the opportunity of this publication of our inscriptions and its lack of a suitable fount to cut an entirely new one here used for the first time. The old south Arabic alphabet consists of twenty-nine letters. The new fount comprises eighty forms, enabling palaeographic variants to be printed correctly. The value of this will be realized in reading the palaeographic section of Professor Ryckmans's chapter" (p. xiv). The reviewer is interested in the statement on the same page that the last letter received by the author from that scholar was of date April 23, 1940. The present writer may add that he received in February an agreeable

note from Professor Ryckmans at Louvain, of date December 4, 1944, saying that he was busily engaged in several interesting pieces of work for publication.

The Table of Contents fails to include the Bibliography and Indexes, presented on pages 185 ff. The former include recent titles, mostly published in the 1930's. The Indexes are drawn up with meticulous care. Altogether the volume is an admirable contribution to the field of its science and may be taken as augury of more to come from ancient Arabia, when the peace of the world is finally assured. And from recent diplomatic events it appears that Arabia Felix will play its part.

JAMES A. MONTGOMERY

University of Pennsylvania

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THE CHRONOLOGY OF JEREMIAH'S ORACLES

HERBERT GORDON MAY

A DEQUATE understanding of the books of the prophets cannot be had without serious attention to problems of chronology. Since the chronological data come to us frequently from the hands of editors, they need close scrutiny. The most recent study of the Book of Ezekiel reached the conclusion that the only date to be considered seriously is Ezek. 1:1, and that even this might be spurious.¹ In discussing the chronological data in the superscription to the Book of Jeremiah, Hyatt notes the doubtful accuracy of that given in the introductions to the Books of Hosea and Micah and asks why we should have complete confidence in the chronology in Jer. 1:2. Finding reason to reject these data, Hyatt concludes that Jeremiah began to prophesy not in 626 B.C. but around 614-612 B.C.² It is with Jeremiah that we are concerned here.³ The data in the Book of

Jeremiah are such that we may most profitably begin a reconstruction of its chronology by a consideration of that part of Jeremiah's career which fell during the reign of Zedekiah and later. The oracles and events of this period, from 597-596 B.C. to 587-586 B.C., can be more easily arranged chronologically than those of the earlier period.

With the possible exception of the oracles uttered upon the exile of Jehoiachin (13:18, 19; 22:28-30), Jeremiah's earliest oracles in the reign of Zedekiah appear in chapters 27-29. Most probably they are to be dated close to the accession of Zedekiah, the first year of whose reign was the year 597-596 B.C.⁴ These three

¹ W. A. Irwin, *The Problem of Ezekiel* (Chicago, 1943), pp. 263 ff.

² J. Philip Hyatt, "The Peril from the North in Jeremiah," *JBL*, LIX (1940), 499 ff.; "Jeremiah and Deuteronomy," *JNES*, I (1942), 156 ff.

³ C. H. Cornill (*Das Buch Jeremia* [Leipzig, 1905], pp. xix ff., xxxviii ff.) and others have treated the chronology of Jeremiah in detail. This analysis, however, is made against the background of the author's studies in the Book of Jeremiah: "Towards an Objective Approach to the Book of Jeremiah," *JBL*, LXI (1942), 139 ff.; and "Jeremiah's Biographer," *JBR*, X (1942), 195 ff.

⁴ In contrast to Cornill, *op. cit.*, pp. xlii ff. (so also J. Skinner, *Prophecy and Religion* [Cambridge, 1922], pp. 251 ff.; Irwin-Smith, *The Prophets and Their Times* [Chicago, 1941], pp. 181 ff. and *passim*), it is unnecessary to place chap. 29 after chaps. 27 and 28. Nor are these chapters to be placed in the fourth year of Zedekiah (i.e., 594-593 B.C.; see R. H. Pfeiffer, *Introduction to the Old Testament* [New York, 1941], p. 498). As all agree, we must read *sdqyhw* for *yhwym* in 27:1. In 28:1 "in the fourth year, the fifth month" must not be taken seriously, since the time is obviously the same as in chap. 27, i.e., at the beginning of the reign of Zedekiah. The reference here to the fourth year may be a scribal addition, influenced by the many references to the fourth year of Jehoiakim (25:1; 36:1; 45:1; 46:2), added after the corruption in 27:1 had transferred the incident to the reign of Jehoiakim. Morgenstern notes that the two data of the fifth month in vs. 1 and the seventh month in vs. 17 cannot come from either Jeremiah or the original editor of Jeremiah's words but must be interpo-

chapters are closely related in content and in time. Jeremiah advised the nations sending ambassadors to Jerusalem, the Hebrews in Judah, and the Hebrews in exile, all to reconcile themselves to subjection to Babylon. Through subjection they could escape further disaster and "live."⁵ This was not intended to be primarily a prophecy of hope, although it was, in part, that. It promised them life, albeit under the judgment of God. The bright political future foreseen by Jeremiah's opponents stands in sharp contrast to his picture of a subject nation. The Biographer sought to alleviate the contrast by introducing the thought that a bright future was in the hands of the exiles. Chapter 28 makes vivid the fact that Jeremiah thought that the differences between him and Hananiah were more than a quarrel over the length of the Exile. Much in Jeremiah's subsequent thought and action can be better understood if we keep in mind his belief that subjection to Nebuchadrezzar was the judgment of God upon the Hebrews. Not merely the defeat and exile of the He-

brews in 597 was the punishment of God against Judah for its sins, but also continued subjection of the exiles and the Jews in Palestine to Nebuchadrezzar. Jeremiah seems to have considered this a sufficient equivalent of the fate of complete desolation of Judah by her enemies, which he had been prophesying before 597. In view of the fact that it was, actually, something less than he had predicted, we can understand his rigid insistence that the people submit to at least this. Zedekiah and the Judeans acquiesced until the revolt in the year 589-588. The fact that the Hebrews were living thus under the judgment of God may help explain why we have no oracles against the Judeans from Jeremiah between the beginning of Zedekiah's reign and the beginning of the revolt, although we know from Ezekiel that the religious situation was anything but good.⁶ We may presume, in the light of later events, that in this period Jeremiah remained close to and friendly to the administration.⁷ Jeremiah may have been consulted on occasion during this period by Zedekiah, although we do not possess any record of it. Zedekiah's request for an oracle at the beginning of the siege of Jerusalem in 21:1 ff. may perhaps be better understood if it is not thought of as the first such request Zedekiah had ever made. The relations between Jeremiah and Zedekiah throughout the siege of the city become more intelligible, if we think of them as a continuation of earlier contacts.

Although the siege of the city of Jerusalem began in January, 588 (the tenth

lations of a very late editor who employed a late form of the calendar which presumed a spring new year (see J. Morgenstern, "The New Year for Kings," *Gaster Anniversary Volume* [London, 1936], pp. 447, 448). In any case the appeal to Zedekiah to join an anti-Babylonian coalition may have come soon after his accession, and 28:3 may possibly imply that the Exile was at the time less than two years old—in fact, just begun.

Chapter 24 is dated after the Exile in 597, presumably near the beginning of the reign of Zedekiah. The oracle, however, belongs not to Jeremiah but to his Biographer (see May, *JBL*, LXI, 148 ff.; *JBR*, X, 199).

⁵ All three chapters come from the hand of the Biographer who doubtless, as the use of the first person in chap. 27 shows (cf. also 28:1), relies heavily on Jeremiah's autobiography for his data but who elaborates and expands his sources out of all proportion to their original form and content. 27:16-22, 29:10-20, 32b, with the allusions to another inevitable destruction of Jerusalem, the return after seventy years, etc., are largely so to be understood. A. C. Welch (*Jeremiah* [London, 1928], pp. 169 ff.) has one of the best interpretations of the letter of Jeremiah in chap. 29.

⁶ The fact that Ezekiel's stentorian voice was being heard in Jerusalem in this period (cf. Hertrich, Matthews, Bertholet, Irwin, *et al.*) may have had something to do with it.

⁷ Probably, also, to the priesthood, as may be suggested by 29:24 ff. Skinner's view (*op. cit.*, p. 253) that this incident shows Zephaniah the priest working with Shemaiah against Jeremiah is contrary to the plain meaning of the narrative.

month in Zedekiah's ninth year), the Babylonian campaign against Judah began in all probability sometime in the latter part of the preceding year. Lachish Letter IV is evidence that Jerusalem ("the city" of l. 7) was not yet blockaded, while the campaign was still raging in the Shephelah, with Beth Harapha abandoned (l. 5) and the fate of Azekah perhaps sealed (l. 12). Albright has plausibly argued that the Babylonians would have subjugated the minor towns before laying siege to the capital and that the main Chaldean army arrived in Philistia not before August, 589.⁸ The first recorded oracle of Jeremiah in this period is dated apparently soon after the siege of the city of Jerusalem had started in January, 588, and appears in 21:1-10. In chronological order there should then follow 34:1-7; 37:1-10; 34:8-22; 37:11-16; 37:17-21 and 38:14-28; 32:1 ff.; 38:1-13; 39:15-18.⁹ In this first oracle, found in 21:1-10,¹⁰ it is curious to note that Jeremiah does not give the apostasy of the people as the reason for the inevitability of the coming destruction of the city. He is, rather, still insisting on subjection to the Babylonians, doubtless because he thought the Hebrews still under the judgment of God which decreed this as their punishment. His advice that they might have their lives as the prize of war, if they would surrender and go out to the Chaldeans, is entirely con-

sonant with his oracles at the beginning of the reign of Zedekiah. *This revolt was to Jeremiah a refusal to accept the chastisement decreed by Yahweh.* Those who would surrender to the Chaldeans would be accepting that chastisement.¹¹

The chronological data for the next oracle in 34:1-7 are confusing. The Biographer obviously thinks of it as following 21:1-10 in point of time, and it certainly follows more easily after it. Yet it presupposes a situation in which Lachish, Azekah, and Jerusalem were being simultaneously besieged, as the only fortified cities not yet captured by the Babylonians. This is probably an unhistorical situation, judging from the data presented at the beginning of the preceding paragraph. Equally dubious is the representation (missing in the LXX) of Nebuchadrezzar fighting with all his army and with all the kingdoms and nations of the earth under his sway against Jerusalem and its cities, in verse 2. One cannot but wonder, however, whether in the Biographer's sources there was evidence of oracles of Jeremiah uttered before the fall of Azekah and Lachish, and so before the beginning of the siege of Jerusalem. Such oracles, certainly not preserved in our text by the Biographer, would be earlier than 21:1-10. It is plausible, a priori, that Jeremiah would have voiced his objections to the revolt at its very beginning. The Lachish letters imply that prophets were involved in the situation from the summer of 589, if the letters are to be placed that early.¹² Although the oracle in 34:1-7 is colored by the Biographer's knowledge

⁸ See W. F. Albright, "A Supplement to Jeremiah: The Lachish Ostraca," *BASOR*, No. 61 (1936), p. 15. For the date of the beginning of the siege of Jerusalem see W. F. Albright, "A Reexamination of the Lachish Letters," *BASOR*, No. 73 (1939), p. 16; E. R. Thiele, "The Chronology of the Kings of Judah and Israel," *JNES*, III (1944), 182; Morgenstern, *op. cit.*, pp. 448 ff., and his review of Parker and Dubberstein, *Babylonian Chronology*, *JNES*, II (1943), 127.

⁹ Cf. Cornill, *op. cit.*, pp. xxxv ff., xlii ff.; Pfeiffer, *op. cit.*, pp. 498, 499.

¹⁰ 21:11 and 12 has no connection with the preceding context. So Cornill, Elliott Binns, *et al.* It is reminiscent of, and in part duplicated in, the Biographer's prose introduction to the oracles against the kings in chap. 22.

¹¹ This point of view obviates a problem in Jeremiah's logic raised by Hyatt, who finds it difficult to understand why the prophet counseled individual Jews to desert to the enemy rather than advising them to stand up and take their punishment. In advising surrender, Jeremiah was telling them to put themselves under the judgment of Yahweh (see J. Philip Hyatt, "Jeremiah and War," *Crozer Quarterly*, XX [1943], 58).

¹² See Letters III, 20; LXVI, 5.

of the subsequent course of events, it does reflect the friendliness that existed between Zedekiah and Jeremiah.¹³

Without much concrete evidence, we may suspect that it was sometime in the first year of the siege, in the year 588, that the Egyptians came to the aid of their ally.¹⁴ It was during the temporary raising of the siege, so probably in 588, that Jeremiah uttered the oracle in 37:1-10, predicting the resumption of the siege, adding that Yahweh would, if necessary, bring about the destruction of the city by a handful of wounded Babylonians. Again we understand this against the background of Jeremiah's belief that the judgment of Yahweh demanded that the Hebrews bear the yoke of Babylon. This oracle was followed almost immediately by the one in 34:8-22.¹⁵ 37:1-10 is also evidence that Jeremiah would not have considered the act of freeing the slaves as bearing any weight with Yahweh. Still

¹³ Jeremiah promised Zedekiah a fate which may be in deliberate contrast with that which he had predicted for Jehoiakim (22:18, 19). Elliott Binns, Hitzig, Graf, Peake, *et al.*, think that this oracle in its present form is a mitigation of the consequences of the rebellion and so hardly in harmony with Jeremiah's other oracles. If, however, we remember that the strongly anti-Zedekiah passages in Jeremiah reflect the opinion of the Biographer, in contrast with Jeremiah's attitude toward Zedekiah, we can understand vss. 4 and 5 as from Jeremiah, without the need of addition or emendation.

¹⁴ See Albright, *BASOR*, No. 61 (1936), p. 15. We can hardly imagine their waiting until the siege had lasted a full year. We know from 32:1 that by sometime in the latter half of the tenth year of Zedekiah, which would be the first half of the eighteenth year of Nebuchadnezzar, which began on April 23, 587 B.C. (see R. Parker and W. Dubberstein, *Babylonian Chronology 626 B.C.—A.D. 45* [Chicago, 1942], p. 26; Morgenstern, *JNES*, II, 127), the attempts of the Egyptians to help their ally had proved a fiasco; Jeremiah had been arrested and was in the guard-court (cf. 37:11-21). Albright suggests that the Chaldeans waited perhaps a year before resuming the siege.

¹⁵ For much of this chronological order see C. H. Cornill, *Sacred Books of the Old Testament*, ed. Paul Haupt, *Jeremiah* (Leipzig, 1895), *ad. loc.* The freed slaves were probably brought back almost as soon as the siege was lifted but not until after the oracle in 37:1-10, since Jeremiah makes no mention of it there.

probably in 588 and almost certainly before April 23, 587, during this same period when the city was relieved, Jeremiah was arrested and imprisoned in a dungeon cell (37:11-16). There are two important things here to be noted. Since, as we shall see, the city withstood the siege until July, 586, Jeremiah's imprisonment was, at the least, probably a year and a half and possibly more than two years, if the attempt on the part of the Egyptians to help Jerusalem occurred as early as the spring of 588.¹⁶ Second, Jeremiah's attempt to visit Anathoth to see about a piece of land that belonged to him may be more significant than is usually believed. His interest implies that he expected to find the land of some use to him in the "postwar world." He was, in other words, thinking about the continuation of life in Palestine under subjection to Babylonia. This is background for his oracle in chapter 32. The fact, however, that as much as a year may have intervened between his arrest and his purchase of the land in chapter 32 makes it improbable that he was going to see about the land which he was to buy from Hanamel.¹⁷

37:17-21 and 38:14-28, describing Jeremiah's release after "many days" (*ymym rbyim*—37:16; in view of the length of the siege, this may well be taken literally) from the dungeon cell and the substitution of detention in the guard-court, are probably duplicates.¹⁸ The latter reflects, in verses 14-16, anti-Zedekiah senti-

¹⁶ See Albright, *BASOR*, No. 61 (1936), p. 15.

¹⁷ Contrast Elliott Binns, Pfeiffer, *et al.*

¹⁸ Both presume Jeremiah was taken from the dungeon by Zedekiah for an oracle and then placed in the guard-court (37:21; 38:26). It does not follow from a recognition of duplicates here that 37:11-16 and 38:1-13 are duplicate accounts of the arrest of Jeremiah (contrast Skinner, *op. cit.*, pp. 256 ff.). The incident in 38:1-13 could have happened in the guard-court, for the access of the people to Jeremiah in the guard-court is credible in the light of the treatment of Jeremiah in 37:21 and is consonant with the general picture of the relations between Jeremiah and Zedekiah.

ments characteristic of the Biographer,¹⁹ but there is no reason to doubt the essential accuracy of verses 17-28. The next incident—Jeremiah's purchase of the land at Anathoth in chapter 32—occurred, as we have seen, sometime after April 23, 587 B.C., perhaps as much as a year after his arrest and after "many days" in the dungeon cell and an equally indeterminate period in the guard-court. In the light of Jeremiah's earlier predictions and his later actions, we cannot but believe that this action implies that Jeremiah was thinking of a continuing existence of some Hebrews and himself in Palestine after the war under the yoke of the king of Babylon.²⁰ There was an element of hope in this, for the Hebrews in Palestine, as there also had been in his message earlier in chapters 27 and 28. This would have been anathema, however, to the princes and consonant with the advice he continued to give in the guard-court, that he who would surrender to the Babylonians would have his life given to him as a prize of war. Jeremiah's conception of the "postwar" world, his persuasions to surrender, and his predictions of the capture of Jerusalem may all have been part of the motivation of the princes in 38:1-13. In estimating the position of Zedekiah in this circumstance, we may take at face value his statement to the princes, "See! He is in your hands, for the king can do nothing against you." And when, at the instigation of Ebedmelech, Zedekiah saved

Jeremiah's life, we can appreciate better the pressures against which he was working. In view of the opposition and in the light of the message of Jeremiah, Zedekiah deserves credit for greater stature than most kings, ancient and modern!²¹ Soon after this incident, Jeremiah gave for Ebedmelech the oracle in 39:15-18.²² After a two-and-a-half-year siege, the city fell to the Babylonians, in July, 586.²³

The confused tradition in chapters 39 and 40 agrees that the Babylonian conquerors looked upon Jeremiah as a "Quisling," although Jeremiah's insistence upon subjection to Babylonia had not been motivated by any sympathy for Babylonia but by his conviction of the nature of the judgment of Yahweh. The narrative in 40:1 ff. is the more credible. The rounding-up of captives was not completed for at least a month, for it was not until a month after the capture of the city that Jeremiah was recognized by Nebuzaradan and offered his choice of

²¹ The opposition of the princes (and the friendliness of Zedekiah) to Jeremiah may perhaps in part be explained by Jeremiah's insistence that Jehoiachin would not return from exile (22:24 ff.). The princes doubtless looked upon the exile of Jehoiachin as temporary and reckoned Zedekiah's reign only as an interim rule (see W. F. Albright, "The Seal of Eliakim and the Latest Pre-exilic History of Judah," *JBL*, LI, 92 ff.; H. G. May, "Three Hebrew Seals and the Status of Exiled Jehoiachin," *AJSL*, LVI, 146 ff.; cf. Jer. 28:1-4). This would not strengthen Zedekiah's position with the princes, but Jeremiah's view might have strengthened the bond between Jeremiah and the king.

²² Duhm, Schmidt, Erbt, Cornill, and others argue ineffectively for the unhistoricity of this oracle; but Pfeiffer, Giesebrecht, Peake, and others with more reason accept it.

¹⁹ Contrast Elliott Binns and Buttenwieser, who think this entire passage apocryphal. Better is Pfeiffer's use of 38:24-28a to supplement 37:16-21 (*op. cit.*, p. 485).

²⁰ We cannot use vss. 17 ff. as Jeremiah's interpretation of this incident (see May, *JBR*, X, 198; see also Welch, *op. cit.*, pp. 217 ff.). Verses 1 and 6-15 are the most trustworthy part of this chapter. Verses 2 ff., actually accusing Zedekiah of responsibility for Jeremiah's incarceration (*sic!*), reflect the anti-Zedekiah prejudice of the Biographer. We may compare how the Biographer in 38:23 may actually accuse Zedekiah of burning the city of Jerusalem, following the usual pointing of *tšrp*.

²³ Morgenstern (*JNES*, II, 127), in the light of Parker and Dubberstein's Babylonian chronology, has ventured to date the beginning and end of the siege of Jerusalem as January 15, 588 B.C., and July 19, 586. This presumes an identical intercalary system in Palestine and Babylonia in this period; but, in any case, the dates are as exact as is important for our understanding of the period. Zedekiah's ninth year was 589-588 B.C., reckoning from the autumnal New Year. The tenth month would be approximately January, 588. His eleventh year was 587-586, in which the fourth month would approximate July, 586.

staying in Palestine or going into exile.²⁴ That he should prefer to remain in Judah is consonant with his oracles, which were pointed more toward the Hebrews in Palestine than toward the exiles or their return. Gedaliah's advice to the Hebrews to stay in the land and accept the overlordship of Babylonia that all might be well with them sounds too much like Jeremiah's sentiment not to be, in part at least, the result of his influence. It follows the pattern of Jeremiah's advice at the beginning of the rule of Zedekiah. We can understand Jeremiah's continued interest in the people in Palestine, particularly if there is any validity at all in the relatively small number of exiles given in Jer. 52: 28-30.²⁵ In keeping with this was Jeremiah's oracle for Johanan and his associates, although the oracle in 42:9-22 is so thoroughly garbed in the diction of the Biographer that we cannot recover from it much more than the fact that Jeremiah advised against leaving Palestine for Egypt.²⁶ It was still the judgment of God

that the Hebrews should bear the yoke of Babylon. Shortly after the beginning of the new year 586-585 B.C., Jeremiah found himself in Egypt. His oracles in Egypt are so expanded by the Biographer that they must be studied carefully. Most credible are the oracle and dramatic parable in 43:8-13, probably uttered soon after arrival in Egypt.²⁷ To the end, Jeremiah maintained that it was impossible to escape the judgment of God.

We work backward to the reign of Jehoiachin. His rule of three months falls within the last year of Jehoiakim (598-597), his exile taking place not far from the spring equinox, to judge from II Chron. 36:10.²⁸ Whether Jer. 13:18 and 19 and 22:28-30 were prophesied by Jeremiah just after Jehoiachin's exile or in anticipation of it cannot be ascertained.²⁹ 22:24-27, a prose oracle predicting the exile of Jehoiachin, is more clearly dated before the Exile. The writer would place in this same period the oracles in 13:15-17 (if original) and 22:20-23. Both, in other words, are to be associated in time with the oracles which follow rather than with the oracles which precede. As

²⁴ If Jeremiah had been taken captive upon the fall of the city, he may have been in chains as a captive for the month. However, it may be that the captives were not rounded up until the city was burned, one month (less two days or plus one day [cf. Jer. 52:12 ff. and II Kings 25:8 ff.]) after its capture (cf. II Kings 25:18 ff.). Jer. 40:1 ff. is dated at least as late as August, 586, when Nebuzaradan had arrived on the scene. It was not until the arrival of Nebuzaradan that Gedaliah was appointed governor (II Kings 25:22). Gedaliah's rule lasted less than two months, if we may credit the tradition which places the murder of Gedaliah on the third of the seventh month (cf. J. Morgenstern, "The Three Calendars of Ancient Israel," *HUCA*, I [1924], 23 ff., and "Two Ancient Israelite Agricultural Festivals," *JQR*, VIII [1917], 44 ff.). Cheyne presumed Gedaliah's rule lasted five years, and, more recently, T. H. Robinson that it lasted three or four years.

²⁵ Cf. II Kings 25:11, 12, which, like II Kings 24:14, may possibly be somewhat exaggerated to depreciate the nonexiles. Cf. the Biographer's estimate of the nonexiles in Jeremiah, chap. 24.

²⁶ In vs. 10 not only do we have the Biographer's typical phraseology, but the statement that Yahweh regretted the harm he had done the Hebrews is non-Jeremianic, more consistent with such sentiments as we find in 18:6 ff. The anti-Babylonian sentiment in vs. 11, the prejudice against the Jews in Egypt in vs. 15 ff., and the expansive phraseology are typical.

²⁷ Chapter 44 contains much that recalls the Biographer's expansions of the temple address in 7:1-8:3. There is, however, no reason for doubting a Jeremianic base. Compare Pfeiffer's opinion that 44 is to a great extent redactional (*op. cit.*, p. 500).

²⁸ See also Morgenstern, who places the reign of Jehoiachin within the late spring and summer period of 597 (*JNES*, II, 127). Thiele's attempt to date the captivity of Jehoiachin absolutely to the tenth of Nisan of this year, however, rests upon the interpretation of Ezek. 40:1 as the exact twenty-fifth anniversary of the captivity and, apparently, upon the interpretation of Jer. 22:19 and 36:30 as history rather than as prophecy (*JNES*, III, 182). The Babylonian tablets, disclosing that by 592 Jehoiachin had five sons, supports the account in II Kings 24:8 that Jehoiachin began his rule at the age of eighteen, as over against II Chron. 36:9 (cf. Albright, "King Joiachin in Exile," *BA*, V [1942], 49 ff.).

²⁹ As in other instances, Jeremiah may be projecting himself in his imagination into the time when the predicted event will have taken place (cf. 4:19 ff.; 6:24 ff.; etc.). The attempt to refer 13:18 and 19 to Jehoiakim (cf. B. Duhm, *Das Buch Jeremia* [Tübingen and Leipzig, 1901], p. 124), has rightly received little acceptance.

we shall see, their theme of an imminent exile is not characteristic of the oracles of Jeremiah from the reign of Jehoiakim. It should be noted that the Jehoiachin oracle in 22:28-30 shows how far from any messianism was Jeremiah's thought.

We now come to the more difficult part of our reconstruction, which we have left deliberately to the last, namely, the oracles of Jeremiah during the reign of Jehoiakim. Among the earliest oracles of this period is that in 22:10-12 predicting the death in Egypt of deposed Jehoahaz. The temple address in chapter 26 is dated near the beginning of Jehoiakim's reign. A much-expanded version of Jeremiah's oracle on this occasion may appear in 7:1-8:3. The two oracles against Egypt in 46:3-12 and 14-25 are dated in the fourth year of Jehoiakim, i.e., 605-604 B.C.³⁰ It was in this year, probably near its end in the late summer, that Jeremiah dictated his oracles to Baruch (36:1-7). About the same time, in the same year, is to be placed the oracle for Baruch in chapter 45. It may have been little more than two months later, on the first day of the ninth month in the fifth year of Jehoiakim,³¹

that Baruch read the scroll in the temple court. Soon thereafter, Jeremiah gave the oracle against Jehoiakim in 36:28 ff. We may wonder whether we should also date the other oracle against Jehoiakim in 22:13-18 about the same time. Another oracle obviously to be placed in the reign of Jehoiakim is the dramatic parable of the Rechabites (35:1 ff.), uttered, as verse 11 indicates, after the Chaldeans had invaded Judah in 598-597.³²

Since problems of chronology involve an understanding of the content of Jeremiah's oracles, we may pause to note something of the message of Jeremiah revealed in these oracles, which more obviously are to be placed within the reign of Jehoiakim. Jeremiah's prediction of the coming doom was unconditional—consistently so. Those scholars who see in such passages as 7:3-7 and 26:3-5 later expansions are on the right track: the pleas to repent, that perhaps the people might listen and turn from their evil ways, are peculiarly characteristic of the Biographer and his diction.³³ Contrast 26:9 (cf. 4:28). The quotation from Micah in chapter 26 shows the succession in which Jeremiah must be placed.³⁴ The violent reaction to Jeremiah's preaching at the beginning of Jehoiakim's reign, as illustrated in chapter 26, does not have to be

³⁰ 46:26 is missing in the LXX, and 46:27 and 28 is duplicated in 30:10 and 11. All are non-Jeremianic. Giesebrecht and Pfeiffer doubt the authenticity of the oracle against Egypt in 46:14 ff. Nabopolassar, according to the chronology of Parker and Dubberstein, died late in July, 605. If this date is correct and if the battle of Carchemish occurred in the fourth year of Jehoiakim (Jer. 46:2), obviously it occurred after the death of Nabopolassar, contrary to the usual reconstruction (Robinson, Olmstead, Pfeiffer, *et al.*). The battle at Carchemish in chap. 46 is, then, not to be associated with the revolt of Egypt, Syria, and Phoenicia, which preceded the death of Nebuchadrezzar's father, described by Berosus in Josephus *Antiq.* xi. 219 ff., *Against Apion* i. 132 ff. (cf. Thiele, *op. cit.*, pp. 180 ff.). Either this, or we must date chap. 46 to the third year of Jehoiakim rather than to the fourth year, i.e., earlier in 605 B.C. For an earlier date for the battle at Carchemish see also Welch, *op. cit.*, p. 87.

³¹ I.e., the first of Kislev, 604 B.C. In the Babylonian calendar the first of Kislev in this year fell on November 24 (see Parker and Dubberstein, *op. cit.*, p. 25). Contrary to most scholars, the period between the dictation and the reading of the scroll was not almost a year.

³² The campaign must have been of at least more than three months' duration and possibly began in the latter part of 598, if Jehoiachin's reign fell in the first months of 597. In contrast with most reconstructions, we may perhaps take Jer. 35:11 as evidence that Nebuchadrezzar appeared in Judah before the death of Jehoiakim (cf. also II Chron. 36:6). However, II Kings 24:11 may imply the opposite, and this is our earliest source.

³³ The very confusion of the critics in their interpretation of a passage like 3:6-4:4 demonstrates at least that we can never be sure that any of it reflects Jeremiah's viewpoint.

³⁴ The tradition of the time of the Biographer, or the Biographer himself, seems to have considered Hezekiah's reform the result of the preaching of Micah. Cf. 26:19, which, although commentators have failed to see it, is part and parcel of the conception of conditional prophecy in 26:3-5, and so the Biographer's expansion of the elders' speech.

considered the climax of years of grievance against Jeremiah. We may compare the reaction elicited by Amos at Bethel, perhaps at his first appearance.³⁵ Obviously, we cannot accept uncritically the Biographer's description of the content of the scroll dictated by Jeremiah in the fourth year of Jehoiakim (36:2, 3, 29). The Biographer presumes, apparently, that it contained conditional prophecies (cf. 36:3) and that in it Jeremiah referred to the king of Babylon by name (36:29). It is doubtful that Jeremiah had, in any of his prophecies up to this time, even mentioned the Babylonians by name as the foe to destroy Judah. He also presumes that the scroll contained the oracles against the foreign nations now found in chapters 46 ff., as well as oracles concerning Israel and Judah (36:2—"concerning Israel [LXX = Jerusalem], and Judah, and all the other nations"). His conception of the nature of the scroll at this point appears again in 25:13 and 14.³⁶ 36:2 and 25:3 indicate that the Biographer thought the scroll contained all the oracles which Jeremiah had uttered from the thirteenth year of Josiah to the fourth year of Jehoiakim. Hyatt is eminently correct in his rejection of the validity of the dating in the latter passage,³⁷ and weight is added to his arguments by our recognition that it is associated with a content reflecting the Biographer's typical diction and ideology.³⁸ And 36:2 is obviously from the same hand. We may notice two other things. The oracle on Baruch in chapter 45 is reminiscent of

Jeremiah's confessions, which may fall in the same general period. The oracles against Egypt in chapter 46 recall, significantly, the oracles on the foe from the north. They might, indeed, be classified as oracles on the foe from the north (cf. 46:10b, 20), and they have much the same atmosphere. Do the oracles on the foe from the north in 4:5 ff., etc., come from the same period, early in Jehoiakim's reign?

This introduces the most difficult of all our problems—the chronology of the undated Jeremianic oracles in chapters 1–25. A number of oracles may plausibly be placed with reference to chapter 36, when Jeremiah, in the latter part of 604 B.C., was forbidden access to the temple. It is not improbable that it was after the incident in 19:14–20:6—the conflict with Pashhur, the chief overseer in the temple—that Jeremiah was banned from the temple.³⁹ In this case the parable of the broken flask in chapter 19 should also be placed in 604 B.C., since it immediately preceded the Pashhur incident, and we cannot be far wrong in placing here the parable of the potter in chapter 18. Jer. 13:1–11, the parable of the waistcloth with the visit to the Euphrates, may well be placed in this same general period, when the international situation was making this river play a large part in the thoughts of the peoples of the Near East. We may note that the parable does not predict exile beyond the Euphrates but ruination of the Hebrews, the idea being perhaps that disaster is to come from that direction, i.e., the foe from the north. This is so in keeping with the message of Jeremiah that the writer rejects the common substitution of "Parah" for "Euphrates." It is probably also in the

³⁵ Cf. J. Morgenstern, "Amos Studies I," *HUCA*, XI (1936), 19 ff.

³⁶ Skinner (*op. cit.*, p. 242) thinks 25:3–13 "the original peroration of the scroll." Nothing could be further from the truth. The Biographer's conception of the content of the scroll is apparent throughout vss. 3–14.

³⁷ *JBL*, LIX (1940), 513; so also Welch, *op. cit.*, p. 115, *et al.*

³⁸ *JBL*, LXI, 142 ff.

³⁹ See Pfeiffer, *op. cit.*, p. 496. This is more plausible than any association with the temple address in chap. 26, with Giesebrecht, Skinner, Bittenwieser, etc., or theories of temporary Levitical defilement.

reign of Jehoiakim, where we have ample evidence of persecution, that, with most scholars, we are to date the so-called "confessions" of Jeremiah. Pfeiffer suggests that, for the most part, they may have been written in that period in the reign of Jehoiakim when Jeremiah was in concealment, outwitting the royal police, which, according to our chronology, would have been from the end of 604 to the latter part of 598.⁴⁰ We do not know how long Jeremiah was restricted from access to the temple. We may suspect that if the three-year period of subjection to Nebuchadrezzar mentioned in II Kings 24:1 is to fall in the years 600-598, Jeremiah would not have been restricted in this period, when the influence of the pro-Babylonian house of Shaphan, friendly to Jeremiah, would doubtless be considerable.⁴¹ In any case, there is no particular reason to associate any of the confessions with the reign of Josiah. We have no evidence of persecution of Jeremiah in this period, and the theory that the opposition of the men of Anathoth was due to Jeremiah's support of the Deuteronomic reform has been sufficiently exploded by Hyatt. Since they would doubtless feel that Jeremiah's actions would reflect on them, the men of Anathoth would have reacted against the "treason" and "blasphemy" of Jeremiah

with even more feeling than the citizens of Jerusalem.

This brings us to the oracles on the foe from the north, which are intimately tied up with the problem of the date of the beginning of Jeremiah's ministry, since his call included a prediction of the coming foe from the north (1:13 ff.). We are thus approaching the end of our study. By far the best recent analysis of the date of these oracles has been made by Hyatt,⁴² who ascribes them to the period around 614-612 B.C. It is, as he remarks, time that the Scythian theory be abandoned. Especially absurd was the accompanying hypothesis, that, as a result of the failure of fulfilment of his Scythian prophecies, Jeremiah was discredited and consequently in enforced retirement. Micah's prophecies had not as yet come true, and yet he was quoted as an authority. If failure of fulfilment thus discredited a prophet, Jeremiah, on two scores, should have been discredited in 597: neither his prediction of utter destruction of Jerusalem and its temple nor the fate he foresaw for Jehoiakim had come to pass. Hyatt would identify the foe from the north with the Chaldeans and their allies, arguing that the general tenor of these poems shows that the identity of the foe was not clear to the mind of the prophet. The description could fit the Chaldeans or the Chaldeans and Medes. So he would assign the poems to a period after the alliance of the Medes and Neo-Babylonians, lasting possibly through the time of Nineveh's fall. He is able to find, however, nothing that refers specifically to the Medes, and he says only that all the descriptions of the foe might easily fit the Chaldeans or the Chaldeans and Medes. If, however, there is confessedly nothing in the poems that cannot easily fit the Chaldeans, it would seem to complicate the problem un-

⁴⁰ *Op. cit.*, p. 497; see also Irwin-Smith, *op. cit.*, p. 174.

⁴¹ The action of Ahikam, the son of Shaphan, in saving Jeremiah (26:24), the role of Gemariah and Micaiah, son and grandson of Shaphan, at the time Baruch read the scroll in the temple (chap. 36), and the inclusion of Elasah, son of Shaphan, in a mission to Nebuchadrezzar (29:3) point to the fact that this family was not part of the anti-Babylonian party and help explain the selection of Gedaliah, son of Ahikam and grandson of Shaphan, as governor in 586.

Dan. 1:1 preserves a tradition that the revolt was not in 600 but in the third year of Jehoiakim (606-605). Thiele (*op. cit.*, pp. 181, 182) associates this with the campaign mentioned by Berosus (see n. 30 above), preceding the death of Nebuchadrezzar's father. If so, on the basis of the older source in II Kings, we must assume another revolt in 600, after which Jehoiakim was loyal to Babylonia until the revolt in 598-97.

⁴² *JBL*, LIX (1940), 499 ff.

necessarily by bringing in the Medes. The only conclusion that could be drawn at this point would be that *if* the Medes are to be included, then the poems *may* be dated around 614–612. “A certain vagueness” in the poems and the fact that Jeremiah never names the Chaldeans in these poems would give more excuse for bringing in the Medes, *if that same vagueness and failure to mention the Chaldeans by name were not likewise characteristic of every one of Jeremiah’s oracles in the reign of Jehoiakim*.⁴³ Even in the oracles against Egypt in chapter 46, where the foe from the north is obviously the Chaldeans, there is an equal vagueness and no mention of the Chaldeans.⁴⁴ The picture of a time when not even one person could be found who aimed at honesty and did justice (5:1) in the foe-from-the-north oracles is hardly consonant with a background in 614–612, for Jeremiah ascribes just these virtues to Josiah.⁴⁵

⁴³ The two exceptions are 20:4 and 36:29, from the biography, where the Biographer may be paraphrasing the words of the prophet; and we certainly have no guaranty that we have the exact words of the prophet. 36:29, at least, is in an oracle which is expanded in the Biographer’s typical phraseology. In this verse Jehoiakim is quoted as saying that the king of Babylon is mentioned in the scroll dictated by Jeremiah, but, as Skinner notes (*op. cit.*, p. 242), this only means that in the opinion of the narrator Jehoiakim knew perfectly well what was in Jeremiah’s mind.

⁴⁴ Nebuchadrezzar is mentioned in vs. 26, but the verse is clearly late, as has been noted, and it is missing in the LXX. See also the temple address in chaps. 7 and 26, where the foe is not identified. Hyatt contrasts the oracles of Amos, written before the rise of Assyrian power under Tiglath Pileser, in which the precise source of danger is not mentioned, with those of Hosea and Isaiah, written after the rise of that monarch, where the Assyrians are mentioned. However, we may point out that in Micah, contemporary with Isaiah, the source of the disaster is not once mentioned. The only mention of Assyria in Micah is in accepted post-Exilic passages (5:4 and 5 and 7:12). Compare also Zephaniah, where the mention of Assyria occurs only in the late passage 2:12–15, and there not as the destroyer of the Hebrews.

⁴⁵ 22:15. Hyatt (*JNES*, I, 161) suggests that the reforms of Josiah were only partially or temporarily successful and that perhaps even before his death the local sanctuaries were partly rebuilt and used for worship. This is essential to the hypothesis that the foe-from-the-north oracles were uttered in 614–612,

Hyatt has done yeoman service in his convincing analysis of the relation of Jeremiah to the Deuteronomic reform and of the passages in which it is said that Jeremiah began his career before that reform in the thirteenth year of Josiah.⁴⁶ The allusion to Josianic-period oracles in 36:2 ff. is in a passage packed with the Biographer’s diction and obviously by the same hand as 25:3 ff. The reference to the thirteenth year of Josiah in 1:2 is from the same source, or dependent upon it. The only other reference is 3:6, the Biographer’s introduction, in autobiographical style, to one of the most palpably non-Jeremianic sections of the book.⁴⁷ The only allusion to Josiah in the Jeremianic oracles is in 22:15 and 16, addressed to Jehoiakim, and 22:10a, an oracle concerning Jehoahaz. Jeremiah need not have been prophesying during the reign of Josiah in order to know enough about him to make the estimate in 22:15, 16.⁴⁸ The oracles in 2:1–3:5, which follow the account of Jeremiah’s call, are to be ascribed to the reign of Jehoiakim. In 2:14–16 there may be an allusion to the fiasco of Josiah’s attempt to stop Necho, and in 2:36 to alliance with Egypt, probably against Babylon.

It would appear, then, not only that we do not have any valid historical sup-

for they reflect a situation of general wickedness and apostasies, with prophets prophesying by false gods and priests profiting from the same pagan worship, while the word of God is a scorn to the people (see particularly 5:6, 7, 31). If the wickedness in high and low places were such as is pictured here, with injustice rampant, could Jeremiah have pictured Josiah as he does in 22:15 and 16, adding, “He defended the cause of the poor and needy—then all went well with him”?

⁴⁶ Compare H. Winckler, *Geschichte Israels*, I (Leipzig, 1895), 112 and 113, who suggests Jeremiah’s career began around 610; cf. T. C. Gordon, *The Rebel Prophet* (New York and London, 1932), p. 106, suggesting 616; see also F. Horst, “Die Anfänge des Propheten Jeremia,” *ZAW*, XLI (1923), 94 ff., who thinks that Jeremiah did not begin to prophesy until the reign of Jehoiakim.

⁴⁷ May, *JBL*, LXI, 147 ff.; *JBR*, X, 198, 199.

⁴⁸ Cf. Hyatt, *JBL*, LIX, 513.

port for a ministry of Jeremiah before the Deuteronomic reform but that there is little to substantiate Jeremiah's prophetic career before the reign of Jehoiakim. Our conclusion parallels that to which Horst came in 1923.⁴⁹ By the time of Jeremiah's Biographer in the fifth century, tradition had presumed for him a career beginning in the thirteenth year of Josiah. The source of this tradition is to be found in the Deuteronomic school, although the Biographer, rather than numerous editors, is primarily responsible for its final form as it appears in our Book of Jeremiah. Until it can be shown that there is reason for divorcing in point of time the call of Jeremiah in chapter 1 from chapters 2-6, which issue from the time of Jehoiakim, we must be dubious of the validity of that tradition. It would be strange that we have no oracles from the period of Josiah, if Jeremiah were prophesying at that time. Jeremiah may have been, then, only a youth in 608 B.C., perhaps no more than twenty years of age and, to judge by 16:1 ff., of marriageable

⁴⁹ Horst, *loc. cit.*, albeit with different supporting data. We may question, for instance, his theory of duplicate recensions. This paper thus agrees with Winckler, Horst, Gordon, and Hyatt in rejecting the thirteenth year of Josiah as the beginning of Jeremiah's career.

age. Before his call, his life may have been lived largely under the reform. Although disapproving of many specific elements of that reform, he was able to think of Josiah's rule in almost idealistic terms. It may have been the contrast which came with the reaction under Jehoiakim which aroused him to prophesy. At least, he felt so strongly the sinfulness of the entire populace under Jehoiakim that his oracles predicted the complete destruction and desolation of Judah. He does not in these oracles refer to an exile but limits himself to vivid pictures of the contemporary sinfulness and the drastic disaster which will make Jerusalem a heap of ruins and the cities of Judah a desolation, without an inhabitant. A leopard will prowl about the cities, tearing in pieces all who go out. Yahweh has spurned and cast off the race that has roused him to wrath. If he seeks to gather a harvest of them, there is not a grape on the vine or a fig on the tree. As time went on, there was to be a development in his thought. However, since we have worked backward toward the beginning of his ministry, it is here that we must, for the time being, leave Jeremiah.

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OLD PERSIAN TEXTS

ROLAND G. KENT

VII. ARTAXERXES I, PERSEPOLIS A

A FRAGMENT of an Akkadian inscription of Artaxerxes I was published by E. Flandin and P. Coste, appearing as Plate 129 in Part 3 of their *Voyage en Perse* (Paris, 1843-54); it contains the beginnings of the last fourteen lines of the inscription. These lines were filled out by F. de Saulcy, in his *Recherches sur l'écriture cunéiforme assyrienne* (Paris, 1847), page 57, and in virtually this form were accepted and printed by F. H. Weissbach in his *Keilinschriften der Achämeniden* (Leipzig, 1911), page 121. The stone had suffered some damage after its first publication, before it was photographed by F. Stolze, in whose monumental work on Persepolis it is given in Volume I, page 65 (Berlin, 1882). It had suffered still further damage before it was copied by Ernst Herzfeld, who gives a hand-drawn chart of the restored inscription with indication of the successive stages of loss, and also a transcription and translation, with a few notes, in his *Altpersische Inschriften* (Berlin, 1938), pages 43-44, as No. 20. Herzfeld made a few slight changes from the version printed by Weissbach.

This inscription is known as Artaxerxes I, Persepolis a, or more briefly as A¹Pa; its text, in a somewhat revised restoration by George G. Cameron, of the Oriental Institute of the University of Chicago, will be given later. At this point it will suffice to give its contents: first the customary formula glorifying Ahuramazda, then the king's name with titles and ancestry, then the real substance of the inscription, which ran somewhat as follows: 'Artaxerxes the Great King says: By the protec-

tion of Ahuramazda this house Xerxes my father began, and I finished; me may Ahuramazda along with the gods protect, and my kingdom, and what I built.'

The italicized part of the translation is that where the text is least certain as to wording or as to meaning; but its approximate correctness is, as Herzfeld (page 44) points out, made probable by another Akkadian inscription, Herzfeld's No. 22, *ApI*, page 45, found in the southeast corner of the Hall of Hundred Columns, reproduced from a photograph in Herzfeld's Plate 16. The transcription is Cameron's:

- 1 mar-ta-ak-šá-as-su
- 2 šarru i-qab-bi bīta a-ga-a
- 3 m̄hi-ši-ṣar-šá-ṣ
- 4 šarru abu-ú-a at-tu-ú-a
- 5 uššu-šú it-ta-du
- 6 ina aššilli šá
- 7 da-hu-ru-ma-az-
- 8 da-ṣ a-na-ku
- 9 mar-ta-ak-šá-as-su
- 10 šarru e-te-pu-uš
- 11 u ul-tak-lil

'(1) Artaxerxes (2) the King says: This house, (3) (of which) Xerxes (4) the King, my father, (5) built its foundation, (6) in the protection of (7) Ahuramaz-(8)da I, (9) Artaxerxes (10) the King, built (11) and completed.'

With these Akkadian texts as background, we come to the subject of our special interest, a fragmentary OP inscription published by Herzfeld in *ApI*, pages 44-45, as No. 21; in addition to a transcription he gives a hand-drawn chart. This fragment has the beginnings of eleven lines of text, each containing from one to five characters; Herzfeld readily com-

pletes the obvious words in lines 3-7 (our lines 15-19, in the completed text), but pronounces the inscription as a whole too mutilated to translate, though he notes "a certain kinship with the Akkadian inscription" which we have designated as A¹Pa.

Later this fragment was photographed by the Persepolis Expedition under Dr. Erich F. Schmidt, who found it still lying in the court before the south front of the *tacara* of Darius. Through his courtesy it is my privilege to study this photograph, and to confirm the readings which Dr. Cameron had previously sent me by letter. The characters which are still to be read on the stone are the following (the numbering of the lines is that of the extant fragment and also that of the lines in the restored text):

- 1 = 13 a-h^a-
- 2 = 14 a-y^a-a-
- 3 = 15 a-r^a-š^a-h^a-
- 4 = 16 š^a-:-d^a-a-
- 5 = 17 :-θ^a-a-t^a-i-
- 6 = 18 y^a-θ^a-i-y^a-:-
- 7 = 19 r^a-m^a-z^a-d^a-h^a-
- 8 = 20 r^a-š^a-a-:-x^a-
- 9 = 21 t^a-a-:-f^a-
- 10 = 22 n^a-v^a-
- 11 = 23 u-v^a-:-h^a-

Some comments on these readings are needed. The š^a in 20 and the v^a in 23 are clear in the photograph, though Herzfeld read respectively d^a and m^a. In 13, the h^a is mutilated but legible; Herzfeld does not record it. In 15, Herzfeld records the prior angle of the h^a, not identifiable in the photograph. In 19, the final character looks like a divider (so Herzfeld, Cameron, Kent), but a form [Au]ramazdā is impossible unless miswritten; the remains of the h^a in 13 show that the prior angle of h^a was in this inscription made almost like the divider, with a very minute upper branch. If the character in 19 is in reality

not h^a, we must assume a miswriting for h^a. As the last visible character of 21, Herzfeld and Cameron both read θ^a or y^a, both of which begin with a vertical hasta and an angle; I proposed rather f^a, which has another vertical hasta after the same two strokes, and both Cameron and I now see this hasta quite certainly in the photograph. In 22, the second character, not identified by Herzfeld, is either v^a or m^a. In 23, the prior angle of the h^a was identified in the photograph by Cameron and by me after I had made the formulaic restoration of *hadā* at this place; Herzfeld does not record any trace of the character.

Cameron and I are agreed that this OP fragment is a portion of the inscription of which the Akkadian A¹Pa, already described, is a translation. On this basis I have attempted a complete restoration of the OP version, which is next presented with an English translation, after which I give Cameron's revision of the restored Akkadian version. The extent of agreement of extant portions is indicated in the OP by putting in roman type all words which represent words and parts of words still preserved in the Akkadian; otherwise italic is used, and portions not visible in the OP fragment are set off within square brackets.

OLD PERSIAN VERSION OF A¹PA

- 1 [baga : vazraka : Auramazdā : hya :]
- 2 [imām : būmim : adā : hya : ava-]
- 3 [m : asmānam : adā : hya : marti-]
- 4 [yam : adā : hya : šiyātīm : ad-]
- 5 [ā : martiyahyā : hya : Artaxšač-]
- 6 [ām : xšāyaθiyam : akunauš : a-]
- 7 [ivam : parūnām : xšāyaθiyam :]
- 8 [aivam : parūnām : framātāram]
- 9 [: adam : Artaxšačā : xšāyaθiya]
- 10 [: vazraka : xšāyaθiya : xšāyaθi-]
- 11 [yānām : xšāyaθiya : dahyūnā-]
- 12 [m : paruzanānām : xšāyaθiya :]
- 13 ah[yāyā : būmiyā : vazrak-]

- 14 *āyā* [: *dūraiṣy* : *apiy* : Xšay-]
 15 *āršah*[yā : *xšāyathiṣyā* : *pu*-]
 16 *ça* : *Dā*[*rayavahauš* : *napā* : Haxā-
 manišiya]
 17 : *θāti*[y : *Artaxšačā* : *xšā*-]
 18 *yathiya* : [*vazraka* : *vašnā* : *Au*-]
 19 *ramazdah*[ā : *ima* : *hadiš* : *Xšayā*-]
 20 *ršā* : *x[šāyathiya* : *hya* : *manā* : *pi*-]
 21 *tā* : *f[rataram* : *pasāva* : *adam* : *aku*-]
 22 *nava*[m : *mām* : *Auramazdā* : *pāt*-]
 23 *uv* : *ha*[*dā* : *bagaribiš* : *utamaiy* :]
 24 [*xšačam* : *utā* : *tyamaiy* : *kartam*]

TRANSLATION

§1. 1-8. A great god is Ahuramazda, who created this earth, who created yonder sky, who created man, who created happiness for man, who made Artaxerxes king, one king of many, one lord of many.

§2. 9-16. I (am) Artaxerxes the Great King, King of Kings, King of Countries containing all (kinds of) men, King in this great earth far and wide, son of Xerxes the King, grandson of Darius, an Achaemenian.

§3. 17-24. Saith Artaxerxes the Great King: By the favor of Ahuramazda, this palace Xerxes the King, my father, previously (built); afterwards I built (it to completion). Me may Ahuramazda along with the gods protect, and my kingdom, and what was built by me.

The difficult point lies in line 21, which will be discussed after the presentation of the Akkadian version, as restored in a standard syllabic orthography by Cameron, who also has made a literal translation; the variations between the two ver-

sions are those which are customarily found in other inscriptions which have come to us undamaged.

AKKADIAN VERSION OF A¹PA

- 1 iš-tin [ina šarrāni^{p1} ma-du-ú-tu]
 2 iš-tin in[a mu-ṭe₄-e-me ma-du-ú-tu]
 3 a-na-ku ^[m][ar-ta-ak-šá-as-su šarru
 rabū^u]
 4 šār šarrāni(LUGAL.MEŠ) šār mātāti
 (KUR.KUR.[MEŠ]) šá nap-ḥar li-šá-
 nu]
 5 šār qa-q-a-ru a-g[a-a-ta rabīti^{ti} ru-
 uq-qu-ti apil]
 6 ^mḥi-ši-³-ar-ši [šarri apil ^mda-a-ri-ja-
 a-muš]
 7 a-ḥa-ma-[an-ni-iš-ši-³]
 8 ^mar-ta-ak-šá-[as-su šarru rabū^u i-
 qab-bi]
 9 i-na ^{GR}šilli šá [^{da}-ḥu-ru-ma-az-da-³]
 10 bīta a-ga-a [^mḥi-ši-³-ar-ši šarru šá]
 11 abu-ú-a at-[tu-ú-a + + + + ar-ki a-
 na-ku]
 12 e-te-pu-uš a-na-[ku ^{da}-ḥu-ru-ma-az-
 da-³]
 13 li-iš-šur-an-[ni it-ti ilāni^{p1} ga-ab-bi]
 14 ù šarru-ú-ti-ja [ù šá a-na-ku e-pu-uš-
 šu]

TRANSLATION

(1) one among many kings,

(2) one among many lords.

(3) I (am) Artaxerxes, Great King,

(4) King of Kings, King of Lands of all Tongues, (5) King of this great extensive earth, son of (6) Xerxes the King, (grand-)son of Darius, (7) an Achaemenian.

¹ The changes which Cameron has made in the Akk. text, against the version given by Weissbach and Herzfeld, are the following: He has restored line 1 from the plate in Flandin and Coste's publication, ignored by all writers. He uses *apil* in line 6 in the meaning 'descendant' = 'grandson', thus textually agreeing with Wb., as against H_z's *apal apli* 'son of the son of'. At the end of line 6 he deletes the gen. *šarri* 'king' after the name of Darius, since the OP has no room for the word in the corresponding place in

line 16, and Akk. 6 is rather crowded anyhow. In line 10 he transposes the relative *šá* from its place before the name of Xerxes in the versions of Wb. and H_z., to the end of the line, which makes the syntax more closely resemble that of H_z's No. 22 (given above). In line 13 he inserts *ga-ab-bi* 'all' to fill out more adequately the available space; in this formula, Akk. sometimes has 'with all the gods' where OP has merely 'with the gods': so XPc Akk. 11 and 13 (cb 20-21 and 25) = OP 12-13 and 15 (cb 21 and 25), and probably XV Akk. 25-26 = OP 26, where the OP text is a restoration merely.

(8) Artaxerxes the Great King says:
(9) In the protection of Ahuramazda,
(10) this palace Xerxes the King, who
(was) (11) my father, . . . , afterwards
I (12) built (to completion). Me may
Ahuramazda (13) protect, with all the
gods, (14) and my kingdom and what I
built.

A few notes to these texts seem in place.

The genitive *Au[ramazdāh[ā]*, in the
OP 18-19, is found also in XPf 34, 43,
XPh 14, 33, 37, 44; the oldest form had
-āhā and the intermediate form had -āhā,
both being found in other inscriptions of
Xerxes.

Below our line 23 (his line 11) Herzfeld
in his chart has drawn a boundary line,
but the photograph shows clearly that the
stone is there roughly broken, and there
is no objection to restoring an additional
line of text, as the equivalence of the text
demands.

There remains the difficult passage
Akk. 11 = OP 21. By comparison with
Herzfeld's No. 22 (quoted above), the
meaning is clearly that "this palace Xerxes
my father began and I finished." The
precise wording in A¹Pa must remain un-
certain; No. 22 suggests Xerxes' *uššu-šu
it-ta-du* '(who) built its foundation', which
would not unduly crowd Akk. 11, but its
equivalent would certainly be too long
for the OP, where the space of not over
ten characters is available. Further, the
OP begins the passage with *f^a*, presumably
the first character of the prefix *fra-* 'be-
fore' or of a derivative of the same. With-
out real confidence in the results, I sug-
gest for the OP *f[rataram : pasāva]*, with
the meaning "Xerxes my father previ-
ously (started building), afterwards I
built (to completion)." The omission of
the verb with the prior subject can be
matched in many languages, though I
cannot quote a parallel from OP itself.

As the Akk. equivalent we have *ar-ki* =
pasāva 'afterwards', but I make no sug-
gestion for the preceding word of four or
five characters. For the meaning of OP
fratarā-, cf. Av. *fratarā-* 'standing before
in space, preceding in time, surpassing in
quality or quantity': Latin *prior* has the
same range of meanings. OP *frataram* in
XPg 11 (cf. *Lang.*, IX [1933], 229-31)
means 'surpassing in quality'; but OP
fratarā maniyaiy in DNb 38 (cf. *JNES*,
IV [1945], 41 ff.) means 'I am the first
(= prior in time) to think. . . . ' To a
temporal meaning in A¹Pa there is then
no valid objection. Yet what we should
like in both versions is a word meaning
'began', which in OP would have to begin
with *f-*, presumably with the prefix *fra-*;
but the OP word for 'begin' does not occur
in any inscription which so far has been
discovered.

The length of the lines on our recon-
structions is regular within the normal
limits of variation. I count the OP word-
divider as the same as other symbols, and
allow four characters for the unfilled gap
in Akk. 11. If we divide the texts into
their three sections, we have the following
numbers of characters:

- OP §1. 1- 8: 19, 20, 20, 20, 20, 20, 20, 20.
§2. 9-16: 20, 20, 20, 20, 18, 19, 20, 24.
§3. 17-24: 18, 17, 18, 21, 21, 19, 20, 19.
Akk. §1. 1- 2 (last 2 lines only): 9, 11.
§2. 3- 7: 13, 13, 15, 15, 8.
§3. 8-14: 13, 13, 12, 16, 15, 12, 14.

While lines 1-12 of the OP, which are
restored *in toto*, could hardly have been
of such regular length as is here assumed,
the average length of the lines is almost
precisely the same as of those lines where
we possess the first characters: 19.9 and
19.5 characters respectively. It is rather
surprising that in both versions every sec-
tion begins a fresh line—and only one of
these beginnings is in a reconstructed por-

tion, that in OP 9. This arrangement is shown to be intentional by the fact that Akk. 7, which ends §2, is deficient in number of characters, evidently to enable §3 to begin a line. But in all the OP inscriptions of Xerxes and later kings, and their translations into Akk. and Elamite

(I have not examined those of Darius I in this connection), not one has such paragraphing in two versions, and of those with three paragraphs or more, only the Akk. of XPb (Herxfeld, *ApI*, page 25) and the Akk. of XPd, copy b, begin all sections with a new line.

VIII. ADDENDA ON NAQŠ-I-RUSTAM B

After the appearance in this *Journal*, IV (1945), 39–52, of my article on DNB, correspondence with certain friends, notably with Professor Albrecht Goetze of Yale University and with Professor Cameron, has led me to some slight revision of opinions and interpretations there expressed. Those which I wish to present here have to do with the OP text only, as my competence does not extend into the other versions.

1. H. H. Schaeder in *OLZ*, XLIII (1940), 289–93 (reference furnished by Goetze), derives Akk. *iṭbarūtum*, which translates OP *aruvastam*, from *abāru* 'stark sein', and not from root *ībru* 'friend', as Herzfeld takes it; his translation of *iṭbarūtum* is 'Rüstigkeit'. Professor F. W. Geers of the Oriental Institute also suggests derivation from *abāru* (according to a letter from Cameron). As German *Rüstigkeit* means 'vigor, activity', derivation of *iṭbarūtum* from *abāru* removes the partial variation in meaning between *iṭbarūtu* and OP *aruvastam* which I noted and attempted to eliminate in *JNES*, IV, 51, and my interpretation of *aruvastam* as 'activity' is confirmed.

2. Line 14 *manahā* is better understood in its etymological meaning 'by my thinking power', rather than in its derivative meaning 'by my will-power'; the latter meaning easily develops from the former, but is not fully developed here.

3. Lines 24–25 must be understood as meaning 'What a man does or performs (for me)', rather than '(for others)'; Darius is speaking only of services to himself. On the subject of the "king's benefactors", see Eduard Meyer's *Geschichte des Altertums*, IV (3d ed., 1939), 41, and especially Herodotus viii. 90 (references furnished by Cameron).

4. Lines 28–32 *yaṭāmaiy : tyā : kar-tam : vaināhy : [ya]divā : āxšnavāhy : utā : viṭiyā : utā : spāṭmaidayā : aitamaiy : aruvastam : upariy : manašc[ā] : [uš]īcā*.

As against my previous translation, *viṭiyā* means not 'in the city', but 'in the palace', where Darius attended to business when he was not campaigning; *manaš-* means not 'will-power', but 'thinking power', as in line 14; *upariy* means not 'over', which is rather lacking in clarity, but 'over and above'. Thus in proper temporal succession three faculties are exercised by Darius: *ušiy*, 'understanding' of what is heard (and seen); *manaš-*, the 'thinking power' which is applied to what has been understood; *aruvastam*, the 'activity' which follows the conclusions reached by the thinking.

Revised translation: 'When what has been done by me thou shalt see or hear of, both in the palace and in the war-camp, this (= what I have done) is my activity over and above my thinking power and my understanding.'

IX. NAQŠ-I-RUSTAM D

On the Tomb of Darius at Naqš-i-Rustam, behind the figure of the King, there are three sculptured attendants, one above the other. In view of the lack of perspective employed by the artist, we must take the topmost figure as the figure farthest from the King, and the middle figure as placed in front of the top figure. These two figures are identified by inscriptions called respectively DNc and DNd.

DNc marks the top figure as Gobryas the spear-bearer; he holds a spear in his hand, and has a bow hanging over his left shoulder. DNd reads thus: *Aspacanā : vaçabara : Dārayavahauš : xšāyaθiyahyā : isuvām : dārayatiy* 'Aspathines the *vaça*-bearer holds the *isuvā*- of Darius the King'. Aspathines is, like Gobryas, standing, with a linear object grasped in his right hand, while a mighty bow, much heavier than that of Gobryas, hangs over his left shoulder. Accordingly, we must conclude that *vaça*- means 'bow' and that *isuvā*- denotes the linear object in his hand.² But for neither word is there an acceptable etymology.³

On the Rock of Behistan there are two sculptured attendants behind Darius; the farther holds a spear, the nearer grasps the bow and has a quiver full of arrows hanging from his left shoulder. They are clearly the spear-bearer and the bow-bearer respectively, though neither is identified by an inscription. In a Persepolis relief (Fig. 14 in E. F. Schmidt's

Treasury of Persepolis, page 22), there are a number of figures standing behind the enthroned Darius. The rearmost are two spear-bearers standing abreast, each holding one spear which is grasped by both hands; the next in front has the King's battle-ax in his right hand, and a bow and quiver slung over his left shoulder by a strap which he holds in his left hand. The agreement of these representations convinces me that the functionary in front of the spear-bearer or spear-bearers is primarily the bow-bearer, and that whatever else he has is a later addition historically; the very wording 'holds the *isuvā*-' in DNd shows that what he holds in his hand is not his primary concern.

Now there have been several divergent identifications of the object held by Aspathines, some of which are listed by Weissbach in his article, "Die Keilinschriften am Grabe des Darius Hystaspis," in *Abhandl. d. phil.-hist. Klasse d. kön. sächs. Ges. d. Wiss.*, XXIX, No. 1 (1911), 41-43.⁴ But we now have positive identifications made by P. J. Junge in *Klio*, XXXIII (1940), 22-23, and by E. F. Schmidt from the photograph taken by the Persepolis Expedition and communicated to me by letter from Cameron, that this object is the battle-ax, the same weapon which the bow-bearer holds in the Persepolis relief. Yet *isuvā*- 'battle-ax' remains now, as before, without an etymology.

Therefore translate DNd: 'Aspathines, the bow-bearer, holds the battle-ax of Darius the King.'

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² I wish by this note to correct my own mistaken translation of DNd in *Lang.*, XV (1939), 174-75, and to give a firm basis for the correct interpretation.

³ The old interpretation of *isuvā*- as 'quiver' or 'bow-case', derivative of the cognate of Av. *išu*-, Skt. *iṣu*-, both meaning 'arrow', involves the admission of an error in writing, *s* for *š*, and does not suit the sculptured object which Aspathines holds.



⁴ Weissbach here establishes the last word of DNd as *dārayatiy*, against the previous reading *dārayatā*; cf. also his chart, *op. cit.*, p. 30.

HAWRÛN-EM-HAB OR HAREMHAB?




KEITH C. SEELE

IN MY recent review of Mercer's *Horus*¹ I rejected the reading *Hawrûn-em-hab* of the name of the last king of the Eighteenth Egyptian Dynasty, as proposed originally by Champollion,² later advanced anew by Montet and Bucher, and now accepted by several other writers.³ I promised to present the evidence in support of the traditional and, as I believe, the correct reading. Readers of the article in which Montet and his colleague first advanced the new interpretation may recall that its occasion was the discovery at Tanis of a granite group portraying Ramesses II as a child (*ms*) with the sun-disk (*Rc*) on his head and holding the *sw.t* plant in his left hand,⁴ while behind him, on a larger scale, stands the falcon god *Hwrwn*, whose name  appears on each side of the base of the sculpture.⁵ Having thus established the existence in Egypt of the Canaanite god Haurôn, the authors move immediately to the conclusion that his name occurs as an ele-

ment in several royal names of the Rameside period or earlier, specifically in that

of the Hittite princess  of the "marriage stela" of Ramesses II and other monuments⁶ and in that of the pharaoh . Their discovery of *Hwrwn* in Egypt is now so

fully substantiated by additional examples, most of which are listed or cited by Posener elsewhere in this *Journal*,⁷ that his place in the Egyptian pantheon cannot be disputed. How long before the time of Thutmose III he was known to the Egyptians still remains to be determined.⁸

But what, then, is the "evidence" for supposing that the name of *Hwrwn* is contained in the nomen of Haremhhab, and not that of Horus, as hitherto universally accepted by Egyptologists after Champollion? It appears to be based entirely on the presence in the cartouche of an , less often , in the space behind and sometimes above the . The examples listed by Montet and Bucher⁹ are drawn exclusively from Gauthier's *Livre des rois d'Egypte*,¹⁰ and they include all those

⁶ Kuentz, "La 'Stèle du mariage' du Ramsès II," in *Annales du service*, XXV (1925), 235-36; all known examples of the name are there listed and discussed; Montet, *Mélanges*, I², 502 and n. 7.

⁷ Cf. pp. 240-42.

⁸ *Ibid.* The example in Pap. Ermitage 1116 A verso, 86, from the coregency of Thutmose III and Amenhotep II is the earliest known occurrence of the name of *Hwrwn*, but one can scarcely doubt that he was introduced to Egypt by the Hyksos. In that event it is surprising that he should have been adopted into the pantheon by the Egyptians so quickly after the expulsion of the invaders.

⁹ *Revue biblique*, XLIV, 158, n. 3.

¹⁰ II, 384-94. The authors cite the Roman numerals of Gauthier's list by Arabic numbers (with an error, "no 70," where they intended "no 10").

¹ Mercer, *Horus, Royal God of Egypt* (1942), esp. pp. 135-36, in the *Review of Religion*, VIII (1944), 154-57.

² Who spelled it Horonemheb, according to Montet and Bucher, *Revue biblique*, XLIV (1935), 158-59 (without citation of source). We scarcely need to feel bound by Champollion's reading. He had never heard of the god Haurôn.

³ Montet and Bucher, *op. cit.*; Edwards, *Hieroglyphic Texts from Egyptian Stelae, etc., in the British Museum*, Vol. VIII (1939), Pl. 27; Smithers, *Journal of Egyptian Archaeology*, XXVI (1941), 164 (who merely expresses the opinion that "there is some evidence" for the proposed reading, without stating whether he adheres to it); Albright, *BASOR*, No. 84 (1941), p. 9; Montet, *Mélanges Maspero*, I² (1935-38), 502. Mercer himself has apparently not accepted Montet's proposal.

⁴ This method of dramatizing the royal name Ramesses (*R-m-s-sw*) is the sole reason for representing the king as a child in this sculpture.

⁵ Montet and Bucher, *Revue biblique*, Vol. XLIV, Fig. 1 on p. 156, Pl. V.

writings, twenty-six in number, of the nomen which contain the *n*, among them the important hieratic specimen from the graffito in the tomb of Thutmose IV, numbered XIII by Gauthier, which is the most significant of all because of the arrangement of the signs. They then admit¹¹ that some of the examples suppress the *n* and list five of the fifteen in Gauthier which lack the *n*. The latter group, they contend, is mostly from private monuments (as if such examples somehow possess less phonetic significance than any others). However, even one of these

reading *Hr-m-hb* of the nomen is correct, it is evident that the last three hieroglyphs only in the cartouche have been disposed of, while a group of four signs at the top, as well as the ∇ behind the falcon, remain unconsidered. Montet believes this to be the final consonant of the divine name *Hwrwn*. He reads the initial group as *mr(y)-Imn*, consisting of a perfective passive participle followed by a direct genitive, the phrase to be translated "beloved of Amun." Thus the entire name is understood as "Hawrûn-em-hab, beloved of Amun." On the other hand, the tradi-

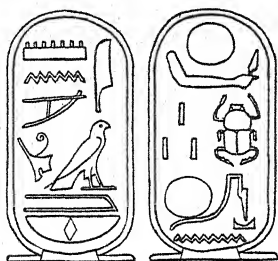


FIG. 1

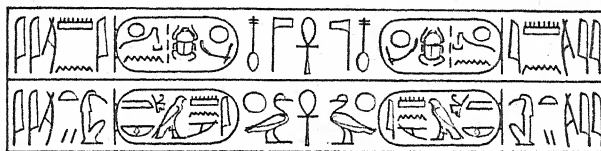


FIG. 2

is found on a statue of Tutankhamun usurped by Haremhab, another on a dyad of King Haremhab and Min, while most of the remainder, indeed, occur in the tomb which Haremhab prepared for himself at Sakkarah before his accession to the throne. Thus there are some twenty-six cartouches in the *Livre des rois* with the *n* and fifteen without it. If judgment is to be made on the basis of statistics alone, the balance is decidedly in favor of the reading with *n*. We shall find it desirable, however, to examine all the elements of the full royal name.

A typical example of Haremhab's double cartouche is reproduced in Figure 1.¹² If it is assumed that the traditional






tional interpretation of the signs simply assumes the ∇ to be the *n* of the indirect genitive and reads *Hr-m-hb mr-n-Imn*, "Haremhab, beloved of Amun." When the cartouche is arranged vertically on a monument, as in Figure 1, this is obviously the most natural treatment of the ∇ , for the construction passive participle plus indirect genitive *n* occurs thousands of times in Egyptian names and other contexts.¹³ In horizontal cartouches, however,

and Broome, *The Temple of King Sethos I at Abydos*, Vol. III (1938), Pl. 4.

¹³ In the Nineteenth Dynasty, shortly after Haremhab, in the nomina of Seti (I) *mr(y)-n-Pth*, Merenptah (*Mr-n-Pth htp-hr-m³.t*), Seti (II) *mr-n-Pth*, Siptah *mr-n-Pth*, all with the verb *mr*; in the prenomena of *Mn-m³.t-R^c stp-n-R^c* Seti I, *Wsr-m³.t-R^c stp-n-R^c* Ramesses II, *Mn-m³.t-R^c stp-n-R^c* Amenmose, *Wsr-hprw-R^c stp-n-R^c* Seti II, *h-n-R^c stp-n-R^c* Siptah; and in the Twentieth Dynasty, *Wsr-h^c.w-R^c stp-n-R^c* Sethnakht, with the verb *stp*. Since the structure of Egyptian names varied in different periods according

¹¹ Cf. n. 9 above.




¹² Figure 1 is adapted from Lepsius, *Denkmäler*, III, 121a; Fig. 2 from *ibid.*, 122e; Fig. 3A from *ibid.*, 125; Fig. 3B from *ibid.*, 134b; Fig. 3C from Calverley







the  is regularly separated from the  sign by the tall figure of the falcon (Fig. 2). Hence the  stands intrusively between the noun subject and the adverbial predicate of the nonverbal sentence *Hr m hb*, "Horus is in festival." Troubled by such an obvious violation of Egyptian grammar, Montet found an easy solution to the problem by taking the intrusive *n* as the final consonant of a divine name  , which now becomes the subject of a normal nonverbal sentence. However, experience in the study of royal cartouches should have precluded any expectation in them of the normal order of words and signs as employed in Egyptian literary or monumental texts.

Even the use of Gauthier's *Livre des rois*, which, be it remembered, prints practically all cartouches in horizontal lines of hieroglyphic type, regardless of the direction of the originals, would reveal considerable variation and inconsistency in the arrangement of signs in royal names. Scholars are unanimous in holding that printed texts are useless in studying any phase of Egyptian paleography. The observation of such variations and abnormalities must be made ultimately from photographs or facsimiles, unless the originals are available. In the cartouches, most of these variations occur in the epithets added to the basic names of the kings. In the case under discussion, we have to deal with one of these. Of scores and scores of examples, I have selected a



to fashion. I have selected examples from the age of Haremhab exclusively. Indeed, his own prenomen *Dsr-hprw-R' stp-n-R'* itself contains the participle *stp* plus genitive *n*, just as his nomen has that of *mr* plus the same *n*. For the use of this construction in the Eighteenth Dynasty, before the time of Haremhab, see, e.g., Gauthier, *op. cit.*, II, 318, XXXIII B and XXXVIII, both with *stp-n-R'* in the prenomen *Nb-m's-t-R'* of Amenhotep III; and XXXVI, with *mr-n-R'*, also in Amenhotep III's prenomen. (To construe the *n* as a formative element of the perfective relative form does not essentially alter the argument.)

few to illustrate this widespread practice on the Egyptian monuments.

First, let us consider the early form of the personal name of the heretic king Akhnaton on the lintel of Theban tomb No. 192,¹⁴ where the several hieroglyphs of the additional epithet   , "Great in his lifetime," are scattered arbitrarily throughout the cartouche, quite regardless of normal word order or of its relationship to the name *Imn-htp Ntr-hk3-W3s.t*. In the contemporary Tomb No. 188 this epithet is omitted altogether, while at Amarna and elsewhere it regularly occurs outside the cartouche.¹⁵

The inexperienced paleographer would certainly be puzzled by cartouches of Thutmose IV so different from one another as    and   ,¹⁶

with the two words of the epithet *h' h'w* separated by the personal name *Dhwtym's* in the first one and united after it in the second. Apart from the abnormal writing of *m's*, both these versions of the nomen, as well as several other variants, are frequent in this reign.

Still more striking is the freedom of arrangement encountered in the signs constituting the nomen of Queen Hatshepsut on several of the scarabs found in the foundation deposits from her temple at Deir el Bahri, excavated by the Metropolitan Museum of Art.¹⁷ While the  of *H3.t* usually precedes the  of *špsw.t*, the other hieroglyphs necessary to the name are scattered at the whim of the lapidary.

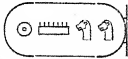
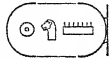
Again, though the prenomen of Ra-

¹⁴ *JEA*, Vol. IX (1923), Pl. XXII, 1.

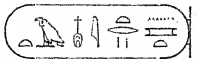
¹⁵ Typical examples may be seen in Davies, *The Rock Tombs of El Amarna*, Vol. I (1903), Pls. XVII, XXII, XXV, XXX, XXXIV.

¹⁶ Cairo No. 23088, published by Ahmed Bey Kamal, *Tables d'offrandes* (1909), p. 72.

¹⁷ Winlock, *Excavations at Deir el Bahri* (1942), Pl. 43.

messes I may be considered to be written normally as ,¹⁸ examples exist also of the type ,¹⁹ with transposition of *mn* and *ph*. That the correct reading of the name is *Mn-ph.ty-R* is evident from the hieratic examples with full phonetic writing.²⁰

For displacement of the genitive word *n*, as it so frequently occurs in the nomen of Haremhab, numerous examples may be found in the cartouches of Seti I, his younger contemporary, whose reign be-

name of Ptah (Fig. 3C),²³ which regularly stands at the beginning. Occasionally, the *n* is omitted altogether;²⁴ it may be written twice (in error);²⁵ or it may be placed after the name of Ptah, with the *mr* sign at the end of the cartouche.²⁶ A similar practice may be observed in the name of Ramesses II's favorite queen, whose cartouche is frequently written , with transposition of the second *n* and *Q*, but above all with the genitive word *mr* before instead of after the passive participle *mr(y).t*, where it belongs.²⁷

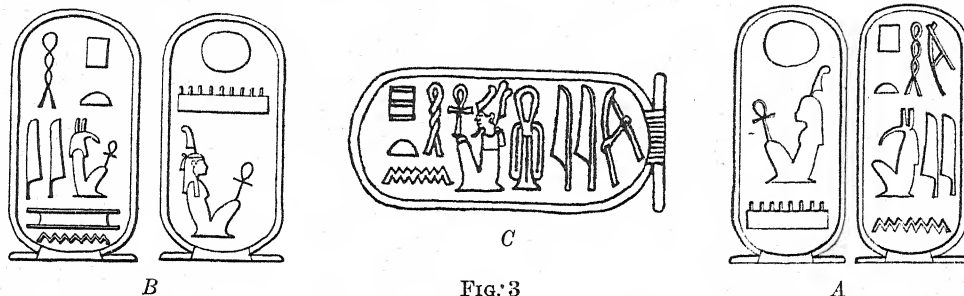
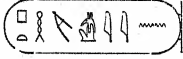


FIG. 3

gan only a few years after Haremhab's death. The most frequent form of Seti's nomen is  (Fig. 3A),²¹ with the *mr* at the end, but many others may be cited with *n* immediately following the *mr* sign, either at the end of the cartouche (Fig. 3B),²² or directly after the

I have perhaps multiplied examples unduly in an effort to demonstrate the more or less arbitrary arrangement of signs in Egyptian cartouches, but, having done so, I am convinced that no one will doubt the prevalence of such inconsistency, especially in royal names of the early Nineteenth Dynasty, about the time of Harem-

¹⁸ Less often with a single *ph* sign; commonly with the addition of one or two *t*'s after *ph*, as in Seele, *Coregency of Ramses II with Seti I and the Date of the Great Hypostyle Hall at Karnak* (1940), Fig. 13, right doorjamb, upper register.

¹⁹ Gauthier, *op. cit.*, Vol. III, p. 4, VIII, D; p. 5, XIV; p. 7, XXVIII; p. 8, XXXIII, F (with two *t*'s); p. 8, XXXVIII (with two *ph* signs).

²⁰ *Ibid.*, p. 6, XXV; p. 8, XXXVI.

²¹ *Ibid.*, p. 13, XI; p. 15, XVIII; p. 16, XXI and XXII; p. 17, XXVI; Seele, *op. cit.*, Figs. 8, 10, and 12. So far as I know, no one has ever suggested that it be read *Styn mr(y)-Pth*!

²² Gauthier, *op. cit.*, Vol. III, p. 14, XV; p. 16, XXIII, A; p. 17, XXV, C and E; p. 21, XXXIX, B, etc.

²³ *Ibid.*, p. 15, XX, C; p. 18, XXVI, D (with substitution of Amun for Ptah). This epithet, *mr(y)-n-Imn* disposes of Montet's argument, *Mélanges Maspero*, I², 502, n. 6, that even "si l'on dit *mry n R* ou *mry n Pth* on dit toujours *mry imn*." Actually, both *mry-n-Imn* and *mry-Imn* occur, and Akkadian *mai-amana* and Greek *Μαίαννον* provide evidence for the pronunciation of the latter only. They have no bearing on the existence of the former.


²⁴ Gauthier, *op. cit.*, Vol. III, p. 14, XVI; p. 15, XVII; p. 21, XXXIX, A.


²⁵ *Ibid.*, p. 17, XXV, G.


²⁶ *Ibid.*, p. 18, XXXII, B, C, and D.

²⁷ Capart and Werbrouck, *Thebes* (1926), Fig. 109; for *n* after *mr.t* in her cartouche cf. *ibid.*, Fig. 85.

hab. Furthermore, just as the reading of Ramesses I's prenomen *Mn-ph.ty-R*²⁸ is assured by the hieratic writing,²⁸ so we may accept the hieratic as conclusive evidence for the correct form of Haremhab's nomen. Perhaps the best example is found in the graffito of the eighth year of Haremhab, on a wall of the tomb of Thutmose IV in Bîbân al-molûk,²⁹ in which it is written in normal hieratic characters:

() *Hr-m-hb mr-n-*

Imn. Everything is in order here, even to the customary honorific position of the name of Amun at the beginning. A second hieratic inscription, dated in Year 7,³⁰ writes the name *Hr-m-hb* alone, without the epithet *mr(y)-n-Imn*. In Year 27 of the reign, when Haremhab visited his mortuary temple at Medinet Habu, that event was recorded by a graffito written on the shoulder of a statue.³¹ The king's name is there written in the full hieratic style, almost purely phonetically, ()

, with the falcon on the standard as divine determinative after the name of Horus, and with the element *mry-Imn* without intervening *n*, as sometimes in the name of Seti I,³² and *outside* the cartouche.

The evidence of these three hieratic

²⁸ See n. 20 above.



²⁹ Carter and Newberry, *The Tomb of Thutmose IV* (1904), p. xxxiii; Gauthier, *op. cit.*, Vol. II, p. 386, XIII.

³⁰ *Ibid.*, p. 385, XII.


³¹ Hölscher, *The Temples of the Eighteenth Dynasty* (1939), p. 107, Figs. 89-90.

³² See n. 24 above. It is not impossible that cartouches of Haremhab without a written *n* (see n. 9 above) contain the epithet *mry-Imn*, those with it, *mr(y)-n-Imn*, i.e., with either the direct or the indirect genitive.



inscriptions, when considered along with the various hieroglyphic versions of the name,³³ allows no possible doubt as to the function of the *n* of the cartouche: it is the genitive word after the passive participle.

But there is still better evidence that the *n* in Haremhab's cartouche is not the final consonant of the name of Hawrûn. For a survey of all the certain known examples of that god's name, most of which are listed or referred to by Posener elsewhere in this issue of the *Journal*,³⁴ reveals no instance of the writing , either in hieroglyphic or in hieratic. Indeed, there is surprisingly little variation in the spelling of the name in manuscripts or on monuments. It is everywhere written phonetically, as it certainly would have been written in the three graffiti of Haremhab, had it been an element of his name. It is an axiom of hieratic studies that the fullest writings, with multiplication of phonetic complements, etc., regularly occur in the cursive script. In hieroglyphic, then, and much more in Late Egyptian hieratic,  can be positively excluded as a writing of the name of the Canaanite god Hawrûn.³⁵

It is no less certain on historical grounds

³³ Note especially Hölscher, *op. cit.*, Pl., 50, g, where the *n* occurs after the hieroglyphs  in the top of the cartouche and extends *entirely* across the space above and before the falcon of the name *Hr-m-hb*. In this case there can be no doubt of the sculptor's intention to construe the *n* with the preceding rather than with the following signs. The same is true in Pls. 45, A; 46, A (top); see also Fig. 82, with discussion on p. 100.

³⁴ See pp. 240-42; cf. also Albright, *AJSL*, LIII (1936), 4.

³⁵ Thus the  which once occurs (in error) for  in the name of Ramesses II's Hittite princess is automatically disposed of (see n. 6 above). Her name was certainly *M³³.t-nfrw-R*, "She who sees the beauty of Re," and not, as Montet proposes, *M³³.t-nfrw-R^c-Hwrwn*, "celle qui voit la perfection de Râ et d'Hou-roun."

that Haremhhab had no connection with Ḥawrûn. Since he was a commoner who ultimately attained the Egyptian throne, we are unusually well informed about the period anterior to his accession.³⁶ Several of his earlier monuments have survived, including a portion of his tomb at Sak-karah, the blocks of which are now scattered throughout the museums of Europe. One will search in vain on these pre-royal monuments for the occurrence of an *n* after the falcon in Haremhhab's name (which in that stage of his life was obviously not inclosed in a cartouche). The explanation of its absence is almost too obvious to mention. It came into use only when, as king, he, like many other pharaohs who preceded and followed him, added to his personal name the royal epithet *mr(y)-n-Imn*, "beloved of Amun," which expressed his relationship to the god of the empire.

Haremhhab was a native of Hat-nesut,

³⁶ Cf. Pfüger, *Haremhhab und die Amarnazeit* (Teildruck: *Haremhabs Laufbahn bis zur Thronbesteigung*) (1936), bibliography scattered throughout the notes, but especially p. 61.

whose patron god was Horus.³⁷ It was from this god that he derived his name, and all his life long he was proud to call himself Haremhhab,³⁸ "Horus is in festival," and to boast of Horus, Lord of Hat-nesut, as his father who had "established his son upon his eternal throne." When upon his accession to the throne he promulgated his name as the Son of Re, we may confidently conclude that he did not surrender to the foreigner Ḥawrûn any of the allegiance which he had always paid to "the god of his city."

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










































³⁷ Cf. his coronation inscription, Breasted, *Ancient Records*, Vol. III, § 27. For the identification of Hat-nesut see now Kees, *Zeitschrift für ägyptische Sprache*, LVIII (1923), 98-99. If Brugsch's copy can be trusted (*Thesaurus*, V, 1074-78), all examples of Haremhhab's nomen in this important inscription lack the *n*, whether the epithet *mr(y)-Imn* is present (ll. 1 and 19) or absent (l. 15).

³⁸ Professor John A. Wilson reminds me of the consistent spelling of *Hr-m-ḥb* without *n* (since there is no additional epithet) as a personal name from the Middle Kingdom to the Saitic period (variant writings, especially of *Hr*, in Ranke, *Die ägyptischen Personennamen*, I [1935], 248, No. 7; 251, No. 12). These, together with the Greek *ἱεραῖς*, are unanimous in pointing to the god Horus as the divinity represented in the name.

HOUROUN: NOUVELLES MENTIONS DE CETTE DIVINITÉ

G. POSENER

SANS attendre la publication des stèles du Nouvel Empire dédiées au dieu Houroun et découvertes vers 1936 au voisinage du sphinx de Gizeh,¹ il semble utile de signaler dès à présent quelques mentions de cette divinité qui, autant que je sache, n'ont pas encore été révélées.

Sur le terrain strictement égyptologique on n'a produit jusqu'ici que deux exemples sûrs de ce nom divin. Le premier se lit sur un groupe de granit découvert par Montet à Tanis et qui représente un dieu-faucon protégeant Ramsès II. Le texte qui court autour du socle nomme ce roi: "Le dieu bon, *Wsr-M³.t-R^c Stp-n-R^c*, fils de Ra, Ramsès Meriamon, aimé de Houroun (                                           


À ces exemples il y a lieu d'ajouter les suivants:

1° Pap. Ermitage 1116 A verso, 86

¹ Cf. *Syria*, XVIII (1937), 405.—À l'époque M. J. Spiegel était chargé de copier ces stèles et je lui ai communiqué les exemples de *Hrn* que je possédais. Comme, à ma connaissance, il ne les a pas utilisés et n'a pas poursuivi ce travail, j'estime nécessaire de les publier moi-même.

² Montet et Bucher, *Rev. biblique*, XLIV (1935), 153-65.

³ Verso 17, 21, 22, 29. Voir le commentaire de ces passages dans Albright, *AJSJ*, LIII (1936), 1-12, à qui nous devons l'étude la plus complète sur le dieu Houroun. L'auteur est revenu sur la question dans *BASOR*, 70, 23 et 76, 9 (et encore 84, 7-12), que je n'ai pas pu consulter; cf. encore Dupont-Sommer, *RHR*, CXX (1939), 153-56.

(date: corégence de Thoutmosis III et d'Aménophis II; provenance probable: région memphite). Dans ce registre des livraisons de grain on lit, entre autres, le nom propre masculin .

2° Dépôts de fondation provenant
semble-t-il du temple du grand sphinx de
Gizeh. Ces objets appartenaient jadis à
Clot-Bey et se trouvent maintenant dans
la Wilbour Collection. Sur certaines
pièces, telles qu'une plaque émaillée

bleue, figure le texte:





 et
 



















“Le dieu bon, $c^3\text{-}hpr\text{-}R^c$ (Aménophis II?),⁵ aimé d’Harmakhis” et “Le dieu bon, $c^3\text{-}hpr\text{-}R^c$, aimé de Houroun dans l’horizon.”⁶



3° Inscription palimpseste découverte par M. E. Baraize dans le "rest-house" de Toutankhamon au cours des travaux effectués près du grand sphinx de Gizeh (Fig. 1).⁷ Il reste du texte original les traces d'un grand cartouche et des plumes qui devaient surmonter un deuxième cartouche. La nouvelle titulature donne à droite, le nom et le prénom de Toutankh-

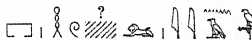
⁴ Var.: au lieu de *m* ³*h.t.*

⁵ L'omission du pluriel après *hpr* se rencontre sur d'autres monuments d'Aménophis II.

⁸ Epithète empruntée à Harmakhis (= "Horus dans l'horizon"). — Je dois la connaissance de cet exemple à M. A. H. Gardiner qui a eu l'amabilité de me le communiquer par l'entremise de M. J. Černý. Cf. *Syria*, XVIII (1937), 405.

⁷ Je remercie M. E. Baraize d'avoir bien voulu me fournir cette photographie.

amon suivis par le cartouche de sa femme
nh.s-n-Imn; à gauche on lit: 
 "aimé de Houboun."

4° Pap. Sallier IV verso 4^e (date: vers
 le milieu du règne de Ramsès II). J. Černý
 a reconnu dans ce passage la mention de
 "la demeure de
H--rjn."⁸

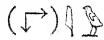
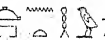

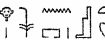

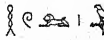



6° Stèle dite "de la fille de Chéops,"¹⁰
 musée du Caire JE 2091 (date: époque
 saïte?). Le nom Houboun n'y a pas été
 reconnu jusqu'ici; il semble bien pourtant
 qu'il figure dans deux endroits de cette
 curieuse inscription dont l'édition critique
 et l'étude approfondie sont encore à faire.
 Les passages en question sont les suivants:
   


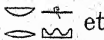
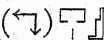


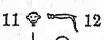
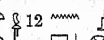
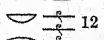



Fig. 1

5° Pap. Turin 1882 verso 3^e (date: sans
 doute fin de la XIX^e dyn.)⁹ Il y est ques-
 tion de "trainer la pierre <pour>" 
 "le Hr dans Mem-
 phis." Comme Hr ne semble pas être connu
 par ailleurs, il est permis de restituer 
 et de lire encore une fois  < >
 "Houboun."

⁸ Cf. Gardiner, *L.-Eg. Misc.*, 91¹⁴ et 91a, 14a.



⁹ *Ibid.*, 123¹⁰.

 et ()  
   
 Les traducteurs successifs du texte consi-
 deraient  ¹¹ comme un déterminatif et

¹⁰ Voir la bibliographie dans Daressy, *RT*, XXX (1908), 1-10, et Breasted, *Anc. Rec.*, I, §§ 177-180; ajouter Wreszinski, *AZ*, XLVIII (1910), 174-76.


¹¹ [The original text has a human-headed sphinx with uraeus and curved beard.—EDITOR'S NOTE.]



¹² [Sign reversed in the original.—EDITOR'S NOTE.]

lisaient dans le premier passage *hw n Hr-m-3h.t*. Mais dans le deuxième le *mw* qui suit *mw*¹¹ constituait une difficulté et on a été obligé de proposer une correction et de restituer <  > devant  obtenant ainsi la même expression que dans l'autre phrase. Le sens généralement admis était "le sphinx d'Harmakhis."



Bien que le mot "*hw*-sphinx de Gizeh" figure dans tous les dictionnaires, je ne crois pas qu'on le connaisse par d'autres monuments que la Stèle "de la fille de Chéops."¹² Une correction de texte qui conduit à un *ἄπαξ* est une mauvaise correction, et il semble préférable d'interpréter les deux passages différemment. Je traduirai le premier: "la place de Houroun-Harmakhis"¹⁴ est au sud de la demeure d'Isis," etc., et le deuxième: "la demeure d'Isis, dame de la Pyramide, est près de la demeure de Houroun," etc. Cette interprétation suppose l'emploi de *mw*¹¹ pour *mw* et l'omission d'un déterminatif après *Hrn*,¹⁵ mais elle élude la difficulté constituée par *mw* et surtout elle présente l'avantage de substituer à un mot douteux *hw* le nom maintenant bien attesté du dieu Houroun.

Pour être complet, il y a lieu d'ajouter

¹² Les dictionnaires y ajoutent l'exemple du pap. de Turin (5°) où on lit pourtant *Hwrw* et non *Hw*. Quant au passage dans Brugsch, *Thes.*, 754 N° 22a (Esne): , il s'agit ici non de *Hw* ou de *Hwrw*, mais de l'adverbe *m-h3.t*: "Il (Khnum) a existé au début."

¹⁴ Ou, selon une suggestion de M. P. Lacau, "Houroun dans l'horizon" (cf. 2°), en lisant  à la place de .

¹⁵ Le texte comporte d'autres bizarreries, cf. Wreszinski, *op. cit.*

à ces exemples les noms géographiques  qui se trouvait dans le nome Busirite¹⁶ et  près de Naucratis,¹⁷ ainsi que le nom propre théophore *H(?)*

w3n^w-ibwm qui se lit peut-être dans les nouveaux textes de proscription du Moyen Empire.¹⁸

Des documents qui viennent d'être brièvement analysés il ressort qu'en Egypte Houroun était identifié à Harmakhis (2°, 6°) et au même titre que celui-ci mis en relation avec la sphinx de Gizeh (2°, 3°, 6°). Populaire sous Thoutmosis III dans la région memphite (1°) et officiellement reconnu dès le règne d'Aménophis II (2°), il avait sous les dyn. XVIII^e-XIX^e un temple (4°), près du grand sphinx (2°), temple qu'on connaissait encore à l'époque tardive (6°).

Ces constatations découlent directement des nouveaux exemples et suggèrent la conclusion suivante: Houroun a été le nom donné au grand sphinx par les Syriens nombreux à Memphis sous le Nouvel Empire et *pr Hr*n n'était autre que le temple du grand sphinx (2°). Le surnom a été adopté par la population indigène, ce qui n'a rien de surprenant à une époque où les nouveautés asiatiques étaient en vogue.

PARIS


¹⁶ Bergmann, *RT*, VI (1885), 131-65: sarcophage de Basse Époque conservé à Vienne.








¹⁷ *Cal. Gén.*, Spiegelberg, *Die dem. Papyrus*, p. 271: Le Caire 31169, col. I recto, n° 24; date: III^e siècle av. J. C. Voir Daressy, *Sphinx*, XIV (1910/11), 159.



¹⁸ Posener, *Princes et Pays d'Asie et de Nubie*, p. 74 (E 17); cf. Albright, *BASOR*, 83 (1941), 34.


ḤAWRŪN-HARMACHIS: A COMMENT ON POSENER'S "HOUROUN"

KEITH C. SEELE





UNFORTUNATELY, Posener has written his article without having had access to Albright's discussion of the tiles from the foundation deposits of Amenhotep II's shrine near the sphinx.¹ Had he seen Albright's Figure 2 with the reproduction of the five tiles bearing the name of *Hwrrn*, I am not certain that he would have read the text as it now stands in the paragraph in which he mentions these objects.² He there reads the last bird in the name of *Hwrrn* as the  which appears in various other examples of the name, both hieratic and hieroglyphic. Albright, on the other hand, takes this sign to be the falcon determinative of the divine name, and the god sign as a second determinative, transcribing *H-wr-u-ni* (det. Horus, god)-*m-h*-³ and translating "Haurôn-on-the-Horizon." He believes the name to be a substitute for "Horus-on-the-Horizon," as found on the other half of the tiles.⁴

For my own part, I believe Albright to be right in reading the bird sign as the falcon, but I doubt whether it is the first of two determinatives to the word *Hwrrn*. I should prefer to read        and translate the entire inscription on the tiles of his Figure 2 as "The Good God, 'Okheprure, beloved of Ḥawrûn-Harmachis" (or "Ḥawrûn and Harmachis"). Thus the god determinative concludes the first of two divine names (*Hwrrn*), and the falcon is an ideogram begin-

ning a second one (*Hr-m-ḥ.t* = Harmachis).⁵ The same combination of divinities (*Hwrrn*'s name written without either  or ) is found again on the monument "de la fille de Chéops,"⁷ and it is apparently only another example of such well-known divine identifications or associations as Amon-Re, Re-Atum, Sobek-Re, Re-Horus, Khepri-Atum, etc.

The presence of the phonetic sign *y* likewise militates against Posener's interpretation of the bird sign as ³ instead of the falcon. We do not expect these two signs to be combined, though one is not infrequently substituted for the other.⁸ However, since my reading of the double name here eliminates any necessity of going into Albright's odd suggestion that the  serves "as indication of the prothetic vowel before the preposition *m*,"⁹ I merely call attention to the fact that this sign occurs in the

⁶ Indeed, on the crudest of the five tiles in Fig. 2 it is quite evident from the arrangement of the signs that the falcon was written by the designer only after his brush or pen had completed the slanting strokes and the god determinative.

⁷ Cf. Posener's sixth example. His n. 14 mentions a suggestion by Lacau to read  instead of . If correct, it would yield the only undisputed occurrence of *Hwrrn-m-ḥ.t* and the only example of *Hwrrn* written with falcon determinative. For the  of certain hieratic writings merely replaces hieroglyphic . The only published photograph of the monument in question reproduces the bird sign too indistinctly to permit a certain choice between vulture and falcon, but all published texts (some admittedly inaccurate) appear to agree on the latter. Some hesitation in accepting Lacau's suggestion is therefore justified.

⁸ Cf. writings of *Mtn* = Mitanni, Albright, *The Vocalization of the Egyptian Syllabic Orthography* (1934), p. 46, B. 3; Burchardt, *Die altkanaanäischen Fremdwörter und Eigennamen im Ägyptischen*, Vol. II (1910), No. 541; of Taanach, Albright, *op. cit.*, 38, A. 15; Burchardt, *op. cit.*, No. 1079; of Ascalon, *ibid.*, No. 149; of *gn*, *ibid.*, No. 294, etc.




⁹ *BASOR*, No. 84, p. 9.


¹ *BASOR*, No. 84, pp. 7-12, with Figs. 1 and 2; cf. Posener's n. 3 on p. 240 of the *Journal*.

² His second example.

³ *Op. cit.*, p. 9.

⁴ *Ibid.*, Fig. 1.

⁵ I can find no parallel to the strange writing  (never, I think, , as Posener suggests) of the word "horizon," but the reading seems beyond question. Is it possible that this is a blundering attempt to write ?

name of *Hwrwn* on these tiles alone.¹⁰ Elsewhere it is replaced by , or both are absent, as Posener's list clearly demonstrates.

A striking detail on the tiles is the fact that the word *mry* at the end of each inscription is turned in the same direction as all other signs on the six illustrated in Albright's Figure 1 which bear the divine name *Hr-m-3h.t*, while it faces in the opposite direction from the other hieroglyphs on those with the double name *Hwrwn-Hr-m-(3)h.t*.¹¹ I strongly suspect this arrangement to reflect some feature of the orientation of the building in which they served as foundation deposits. Perhaps it was a double structure similar to the temple at

¹⁰ The same tiles which contain the abnormal writing of the word *3h.t*, "horizon."

¹¹ In his Fig. 2.

Kom Ombo, with Harmachis honored in one half and *Hawrûn-Harmachis* in the other. In that event, each group of six tiles would have been found beneath its proper division of the temple, with the orientation of *mry* (but why not rather the name of the god?)¹² relative to the position of the divine image, that is, the sphinx at Gizah.

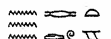
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¹² Cf. the reversed direction of the divine name in certain vertical columns of hieroglyphs on temple columns, where the obvious intention is to orient the god's name in the same direction as his figure; e.g., Nelson, Schott, and Seele, *Reliefs and Inscriptions at Karnak*, Vol. I (1936), Pl. 52, *B* and *D*, col. 1; Pl. 53, *C* and *D*, col. 1; Pl. 54, *C* and *D*, col. 1, etc. It will be noted that all other hieroglyphs in these columns face the same way as the king to whom the inscriptions belong.

THE ASSEMBLY OF A PHOENICIAN CITY

JOHN A. WILSON

A VALUED historical source for the relations between Egypt and Palestine-Syria about 1100 B.C. is the Egyptian tale of the misfortunes of Wen-Amon.¹ This envoy came from Thebes to Gebal (Byblos) in Phoenicia to procure wood for the sacred barge of Amon. Just as he was about to sail back to Egypt with his cargo, certain enemies of his, the Theker, sailed into the harbor of Gebal and demanded that Zakar-Ba'al, the prince of the city, arrest Wen-Amon. Zakar-Ba'al informed Wen-Amon that he would make a statement on the next morning. The passage describing the beginning of this hearing (2:70-71) runs as follows: "When morning came, he [Zakar-Ba'al] had his . . . summoned, and he stood in their midst, and he said to the Theker: 'Why have ye come?'"

The untranslated word is the interest of this note. Photographs amply confirm Gardiner's transcription of the word as  *mw-dwt*, or simply *mw-d*, a singular, masculine noun. No satisfactory rendering of this word seems to have been effected.²

The solution is so simple that it has evaded us previously. The Egyptian gives an adequate rendering of Hebrew מִלְכָּד *mô'ed*, "assembly," with the one qualification that the



word should have human rather than land determinative. *Mô'ed* is familiar in such phrases as "picked men of the assembly" (Num. 16:2) or "Tent of Assembly" (Exod. 27:21, etc.). Zakar-Ba'al of Gebal had a city council, probably referred to in Ezek. 27:9: "the elders of Gebal and her wise men."³

Wen-Amon thus supplies us correctly with a Semitic word for "assembly, council," known from Hebrew but not yet from Phoenician.⁴ We read: "He had his assembly summoned, and he stood in their midst, and he said. . . ."⁵

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³ Contenau, *La Civilisation phénicienne*, pp. 96-97, gives what is known about Phoenician city government. The evidence for a city council is chiefly from classical sources.

⁴ The editor points out that, although *mô'ed* is as yet unknown in Phoenician, the root *y'd* is attested by the personal name "Eshmun-has-appointed-(him)," listed in Z. S. Harris, *A Grammar of the Phoenician Language*, pp. 83, 107.

⁵ In a letter Gardiner expresses his preference for his own "conjecture," mentioned in n. 2 above, and his doubt about my identification, because "Semitic words were never in Egyptian written that way, at least if they belong to the New Kingdom." One must admit that his objection should be valid if this were proper Egyptian of the New Kingdom. Compare, however, Albright's remarks on the "corruption" of the orthography in the Wen-Amon story: *The Vocalization of the Egyptian Syllabic Orthography*, p. 14. For the first part of our word, the writing of Moab as  *mw-i-b* in a geographical list of Ramses II seems applicable (Simons, *Handbook for the Study of Egyptian Topographical Lists Relating to Western Asia*, p. 155). For the structure of the second part of our word, analogies might be cited such as the writing of Raphia as  *r-ph* in Papyrus Anastasi I, 27:7-8. Although Gardiner's experience carries real weight for his doubts, I urge that there are exceptions to rule and that the aptness of the identification cannot be overlooked.

¹ A papyrus in the Moscow Museum, first published by Golénischeff. Translations in Breasted, *Ancient Records*, Vol. IV, §§ 557 ff.; Erman, *The Literature of the Ancient Egyptians*, pp. 174 ff. The latest transcription of the text in Gardiner, *Late-Egyptian Stories*, pp. 61 ff. I have also photographs of the manuscript.

² Breasted and Erman both leave the word untranslated. Gardiner's suggestion, in *Mélanges Maspero*, I, 492-93, that it is a strange compound meaning "bodyguard," derived as a "modified and misunderstood quotation" of an earlier literary work, is tentative.

BOOK REVIEWS

The System of the Quadrilateral Verb in Akkadian. By ALEXANDER HEIDEL. ("Oriental Institute of the University of Chicago, Assyriological Studies," No. 13.) Chicago: University of Chicago Press, 1940. Pp. xviii+141. \$1.25.

The author treats his subject in three chapters.¹ The first deals with the quadrilaterals outside of Akkadian (in Arabic, Syriac, Hebrew, and Ethiopic) (pp. 3-23). The second lists the Akkadian forms at the author's disposal (pp. 24-88). The third justifies the arrangement chosen in the second chapter and tries to understand the genesis of the Akkadian forms (pp. 89-129). The book closes with a summary (pp. 134-35) and with paradigms (pp. 136-41).

The purpose of the first chapter is "to gain a better foundation for" the "observations" to be made (p. 2).² This is a widely practiced procedure, and it may have its good sides. Nevertheless, I think, it also has its dangers. It has in the past proved detrimental to Akkadian grammar. Really cogent principles for classification in any language can come only from that language itself. It is futile to look in Akkadian for what has been observed in Arabic or Hebrew. One must not impose a reconstruction of Primitive Semitic arrived at on the basis of West- and South-Semitic upon Akkadian. As it is, the first chapter prejudices the author of the second. Its proper place would have been toward the end of the volume.

The second chapter, the bulk of the book, presents the material in the form of quotations

¹ The author employs the terminology of Delitzsch's *Assyrische Grammatik* and the same author's *Assyrisches Handwörterbuch*. I am accustomed to Ungnad's terminology (see his *Babylonisch-assyrische Grammatik*) and shall follow it here. The only change I had to make is B (i.e., Basic Stem) for Ungnad's G (i.e., Grundstamm).

² Dr. Heidel informs me that p. 24 contains an unfortunate misprint. In the middle of the first section one should read: "I shall present the forms already classified according to the principles derived from our observations in the third chapter." Not "in the first chapter" as is printed.

with translations of the respective sentences. The collection is valuable and the translations are up to date and reliable. Various classes which present themselves easily enough are distinguished (for criticisms see presently); within the classes the arrangement is made according to "forms" and tenses, etc. There is one grammatical category, called by Heidel "permansive participle," to which I have to take exception. It is nowhere defined; from the forms quoted—*pa/uršumu*, "gray(-haired), old," *palkū*, "wide," *napardū*, "bright," *naparkū*, "failing"—it can be seen that the category comprises adjectives which are claimed as part of the verbal system because a corresponding verb exists, and their predicative forms look like "permansives." Some such forms, e.g., *šapurru* and *šaqummu* are outright called permansives, and sometimes even abstracts (like *šupēltu*, *napalsuhtu*) are included in this somewhat loose terminology.³

Heidel does not claim that his collections are complete, and nobody will expect absolute completeness. Nevertheless, I feel that verbs like *utlellū*, "receive (so and so much) more than (elī) . . .,"⁴ and, above all, the class consisting of imperfective verbs of movement like *nagarruru*, "writhe,"⁵ should not have been omitted.⁶ Structurally, *nagarruru*, etc., are not essentially different from *naparšudu*,

³ *naparšudum* in *naparšudum ul ipparšid* (p. 68) is clearly an absolute infinitive.

⁴ Frequent in mathematical texts (see Thureau-Dangin, *RA*, XXIX, 25).

⁵ Heidel may contend that all these verbs are trilaterals. But the infinitive *nagarrurum* is certainly not N of *garārum*; this would be *nagurum*. There is no place provided in the current grammars for these forms. They look like N based on D (cf. Eitan, *JQR*, XII 25 ff., and Albright, *JQR*, XIII, 503 ff.), but the doubling of the middle consonant may actually be due to the assimilation of an *n*. That is to say, the "pi'el" involved may be of the type which I discussed in *JAOS*, LXII, 6 ff.

⁶ Other words are, e.g., *naḥallulu*, "wriggle"; *naḥarruru*, "come to somebody's help"; *naḥallulu*, "creep." Cf. Delitzsch, *Assyrische Grammatik*, pp. 284-85; B. Meissner, *Beiträge zum assyrischen Wörterbuch*, I, 42-43.

etc.; moreover, if *nagarruru* and its class is to be excluded for one reason or the other, the same reason would also apply to the class of *šuharruru* which the author did treat.

One might well question the wisdom of investigating a grammatical feature in "Akkadian." The alleged unity "Akkadian" has long since become split up in a number of different Akkadian dialects in various stages of development. It is not by chance that nobody has written a "Grammar of Akkadian" for almost forty years. None can ever be written again because we have learned that no problem of Akkadian grammar can fruitfully be discussed without steady consideration of dialectical differences. If there is any justification for Heidel's treatment of the quadriliteral "in Akkadian," it may be found in the relative scarcity of the available material. In fairness to the author, it should be especially emphasized that he has made some valuable observations on dialectical differences in his third chapter.

This third chapter discusses the three classes of quadriliterals which were set up in the preceding chapter. After the paradigmatic verbs, they are called the classes *paršumu*, *šuharruru*, and *nabalkutu*. The first is said (p. 24) to inflect on the pi-el pattern, the second (p. 26) on the šaf-el-pi-el pattern,⁷ and for the third the term "nif'al class" (p. 46) is also used, since N takes the place of B therein.

In the first class there is only one verb: *paršumu*. It is undeniable that the few forms of a "I, 1" (i.e., B) that actually occur—all from Neo-Assyrian texts—are on the "pi-el pattern." But what right do we have to call *paršumu*, "old," a "permansive participle" of the verb? This whole curious category is obviously created out of the endeavor to describe nouns as derivations of verbal "roots." It is surprisingly hard for Semitists to free themselves from the fallacy of fictitious "roots" which the Arab grammarians introduced in the Middle Ages. In the case of *paršumu* it should be clear that the adjective for which occurrences can

be quoted from the old dialects is much older and more original than the verb with the peculiar meaning "outlive (somebody)," which so far is known only in Neo-Assyrian. In my opinion, there can be no doubt that the verb is a denominative and arose from the phrase "see the gray hair in the beard of one's descendants" (likewise attested only in Neo-Assyrian [see Heidel, p. 25]), so to speak "gray-beard someone." In other words, the verb is secondary and probably not even common Akkadian. I would consider it a mistake to enter a verb *paršumu*, "outlive," in the dictionary and to make the adjective *paršumu*, "gray (-haired), old," its derivative. This would be as though Arabists would enter a verb *ḥamdala*, "praise God," in their dictionary and assert that *ḥamdulillāh* is its infinitive.

The author's second class—verbs on the šaf-el-pi-el pattern—is subdivided into three groups: (a) *šuharruru*, *šuparruru*, *šugallulu*, *šugammumu*; (b) *šukēnu*, *šupēlu*; and (c) *šhyn*. I propose to deal with them in order.

As far as group a is concerned, nobody will deny that these verbs inflect as the author states. But is his contention that š is the first "radical" correct in all these cases? I think it is correct in the case of *šugallulu* (or whatever the correct infinitive was). Heidel could not know that in Old Babylonian texts⁸ the preterit invariably appears as *iš-qā-la-al* exactly as in the one Old Assyrian form he quotes. Unfortunately, other old forms are not available, but even so it is clear that we deal here with a type of quadriliteral for which no place is provided either in the current grammars or in the author's scheme. Etymologically *šql*, "hang (intr.)," cannot possibly be separated from *šaqālu*, "suspend";⁹ the relationship was still felt in the older stages of Akkadian; the adaptation to the šaf-el-pi-el pattern did not take place before the middle periods.

Heidel's position can also be defended in the case of *šuharruru* and *šugammumu*, though in a way quite different from that which he follows. Contrary to expectation, both these

⁷ Heidel adds "and šaf-el pattern." If I understand him correctly, this refers to his notion that originally the pattern of what he calls an "old šaf-el" (see presently) was followed and that this was only secondarily adapted to the šaf-el-pi-el pattern.

⁸ To be published in a forthcoming volume of Old Babylonian omen texts.

⁹ As Delitzsch taught in the first edition of his *Assyrische Grammatik* (1889); Heidel states (p. 95, n. 2) that "this would seem to be quite possible."

verbs are intransitive: "become numb, silent" and "become silent," respectively. With both "permansive participles," *šahurru* and *šaḡummu*, exist, furthermore, abstracts, *šahurratu/šahrartu* and *šaḡummatu*. These words are taken from Babylonian contexts; this means that they are independent of any verbal system, since otherwise their prefix would appear as *šu-* in Babylonian, as it indeed does in the younger formations *šuharru* and *šuharratu*. The quoted words are morphologically¹⁰ to be compared with the adjective *šapšaḡu* and the abstracts *šahluḡtu*, *š/sahmastu*, and *šandūtu*. The conclusion is in order that *ušharrir* and *ušḡammim* are denominatives from *šahurru*, "numbed, paralyzed," and *šaḡummu*, "quiet." The relationship is the same as that between *išlim*, "he got well," and *šalmu*, "being well, in good condition." Ultimately the prefix in *šahurru* and *šaḡummu* is related to that of the *šaf-el*. The former word probably belongs to Arab. *ḡarrun*, "dull, inexperienced," the phonetics being similar to that in Akk. *seḫrum*, "small" < **šahīrum* < **šaḡīrum* (cf. Arab. *šaḡīrun*). The latter may well be related to Arab. *qammun*, "dry, withered."

The remaining verb, *šuparruru*, "scatter, spread," is on a different level. It is transitive as a causative is expected to be. It can hardly be separated from *naparruru*, "split up into parts, disintegrate," a representative of the class of *nagarrurum* which was mentioned above. More distant relatives are *parāru*, "separate (intr.),"¹¹ and its D *purru*, "reduce to pieces." If *šuparruru* is to be listed as a quadriliteral, it is nevertheless a genuine *šaf-el*.

Heidel's subclass *b* comprises the two verbs *šukēnu*, "prostrate one's self,"¹² and *šupēlu*,

"(ex)change." Here again the initial *š* is considered as an integral part of the stem. The two reasons which are given are unconvincing. Heidel argues first that Akkadian possesses no cognates that lack the *š*. This is not decisive; isolated elements occur in all languages, and their isolated nature does not necessarily affect their place in the grammatical system of that language. Heidel secondly takes offense with the semantics of the verbs. He states that a *šaf-el* should mean "cause someone to do something." This is quite true of the *šaf-el* that corresponds with a B. But is it true of a *šaf-el* that is based on a formation *gatti/ulu*? This formation means "brought into some state and remain in it continuously," the related causative therefore "cause someone (or something) to be brought into the respective state or condition."¹³ In an analogous way, and this already in Old Akkadian, *šussuku*, "cause something (e.g., a stela) to be overthrown," versus *nasku*, "overthrown, fallen"; or, this apparently late, *šušturu*, "cause something (e.g., a stela) to be inscribed," versus *šaṭru*, "written, inscribed." For the explanation of *šupēlu*, "exchange (a field or the like)," then, one has only to assume the existence of a phrase **eglu pa^ci/ulu*, "exchanged, exchangeable field."

With *šukēnu*, to be sure, an ellipsis must be assumed: "cause (one's body) to be prostrate" or, if we follow the other view, "cause (one's arm) to be straightened." But this is nothing out of the ordinary.

Moreover, does the positing of a quadriliteral *šp^l* and *škⁿ* remove the difficulties? Would one not expect to find forms like **ušap^l* and **ušakⁿ*? And why should they have been

¹⁰ See Nyberg, *Monde orientale*, XIV, 150 ff.

¹¹ This is clear from passages in Old Babylonian omen texts (see n. 8), where we read *aḫū iparrarū*, "partners will separate" (and *aḫū iptarrū*). The passage concerning the falcon's prey quoted by Delitzsch, *HWB* 545 (now *CT*, XXXIX, 28, 7) must be transliterated accordingly.

¹² The remark may be added that some scholars interpret *šukēnu* as a gestus performed with the hand; see Ebelolf, *Studia orientalia*, I (1925), 10, n. 2 (also A. Goetze and H. Pedersen, *Murkilis Sprachlähmung*, pp. 33 ff.), but, on the other hand, B. Meissner, *Der Kuss im Alten Orient* ("SB der Berl. Akad., phil.-hist. Klasse" [1934], p. 917, n. 5). The question is of minor importance here.

¹³ It is in my opinion incorrect to state, as Poebel does (*Studies in Akkadian Grammar*, p. 69), that *urabⁱ* and *ušarbi* have "similar or even identical meanings" and that these are "exactly" duplicated by *ušrabbi*. The D *urabbi* is a factitive and means "make great, grown up" (see *JAOS*, LXII, 1 ff.), the *š ušarbi* is a causative and means "cause (someone/something) to become great"; the ŠD *ušrabbi* means "cause (someone/something) to be made great(er), larg(er), enlarged." I am afraid no linguist will subscribe to the opinion that the ŠD forms "from a rigidly philological point of view, represent a faulty combination"—a view which seems to have impressed Heidel (see p. 97). It is the duty of the philologist to observe and to describe what forms exist; judgments upon the correctness or incorrectness of forms are meaningless.

abandoned in favor of **ušpa-ri* and **uška-in*? They would more easily have become associated with forms like *ušap-ri*, the number of which is unlimited. It must be added that Heidel's so-called "old šaf-el," which according to page 102 was **šparas*, **šparis*, **šparus* ("not . . . šapras, etc.")—that is, an inherited **ušpa-ri*, **uška-in* (see pp. 108 ff.)—is purely speculative and has no justifiable basis. Wherever in Semitics a causative appears, it invariably exhibits a vowel after the characterizing suffix š/h/?; there is every reason for the belief that this was so already in Primitive Semitic.¹⁴ The actually extant forms *ušpa-ri*, *uška-in* (Old Akkadian and Old Assyrian), and *šupe-ru-tu* (already Old Babylonian)¹⁵ show clearly the ŠD pattern. The infinitives *šupēlu* and *šukēnu* cannot be Š; this is proved by an infinitive like *šutānu*, "cause (somebody) to grind (flour)" (Old Babylonian).¹⁶ It is definitely rash to assert that "*šupēlu* can of course go back only to **šupa-ru-m* < **šupa-ru-lum* < **špa-ru-lum*." Should one not consider the possibility (which it is as difficult to prove as to disprove) that *šupēlu* is contracted from **šupe-ru-lum*, just as (later)¹⁷ *šupēltu* from *šupe-ru-ltu* (Old Babylonian)?

The only word in group c, *šh-hn*, "prostrate one's self," is hardly genuinely Akkadian. For this reason its forms are inconsistent with themselves and do not fit any pattern of Akkadian morphology.

Heidel's third class, that of *nabalkutu*, is the

¹⁴ Akkadian forms like *ušdik* are due to inner Akkadian development (< **ušadik*).

¹⁵ "Univ. of Calif. Pub. in Sem. Phil.," Vol. X, No. 1, 75-9; 79-8.

¹⁶ *UMBS*, Vol. VII, No. 1, 62-19.

¹⁷ The difficulty hinted at arises from the fact that the contracted form *šupēlum* is found in the epilogue of the Hammurapi Code. Unfortunately, our material does not suffice at present for the demonstration that in open syllables the contraction was completed earlier than in closed syllables.

most numerous and therefore the best known. Its verbs show N with the meaning of B, and Š as the corresponding causative. The author rightly emphasizes that the forms of the present tense differ in the various dialects: one finds *ibbalakkat*¹⁸ and *ušbalakkat* in Old Babylonian, *ibbalakkit* and *ušbalkat*(?) in Neo-Babylonian, and *ibbalkat* and *uš(a)balkat* in Neo-Assyrian. The undeniable fact that the *n* of the *tn* form sometimes occurs with the second last consonant (type **ittablakkat* < **in-ta-bla-n-kit*), an observation that is due to Poebel, accords well with my own view¹⁹ that the characteristic meaning of the *tn* form is brought about by the *n* rather than by the *t* and that the language originally possessed forms with *n* alone (Bn, etc.).

To sum up, Heidel's book has its value as a collection of material. The linguistic analysis is in almost every respect irreconcilable with my own views. The author approaches the facts of the language with a ready-made and preconceived reconstruction of Primitive Semitic, and this in spite of the commonly acknowledged fact that the system of the Akkadian verb is quite different from what is found in the other Semitic languages. The reconstruction of Primitive Semitic which the book presupposes diverges from everything so far presented. Of course, it is impossible to pass final judgment upon its merits before being provided with more detail. As far as judgment is possible, it strikes me as strange. It is definitely to be regretted that the author deviated so far from standard views without giving his reasons for the deviation.

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¹⁸ It must be mentioned here that in an unpublished Old Babylonian omen tablet I have found *ibbal-kat* (and *ittabalkit*) as against the customary *ibbalakkat* (and *ittabalkat*).

¹⁹ *JAOs*, LXII, 6 ff.

IN REPLY TO GOETZE'S REVIEW

1. The chief purpose of my dissertation, *The System of the Quadriliteral Verb in Akkadian*, is the elucidation of the form system of the Akkadian quadriliteral verb, or the investigation

of the manner in which the Akkadian quadriliteral verbs were conjugated and of the principles by which their vocalization was governed. This problem is treated in great detail

in chapter iii, where I have shown that the quadrilateral verbs in Akkadian did not strive to create a system all their own but that they, like the quadrilateral verbs in the other Semitic languages, adapted themselves to the enlarged formations of the trilateral verb, partly because the latter exhibit the same consonantal skeletons and partly for other reasons. The results of my study may be briefly summarized as follows.

The Akkadian quadrilateral verbs fall into three classes, which, after the paradigmatic verbs, I have called the classes *paršumu*, *šuharruru*, and *nabalkutu*.

While in the other Semitic languages the common adaptation of the quadrilaterals is to the pi'el of the trilaterals (evidently because this stem is the simplest of the enlarged formations), in Akkadian it is found only in the case of the verb *paršumu* and the permansive participle *palkû*,¹ although originally the verbal forms of this class were undoubtedly more numerous.

The great bulk of the Akkadian quadrilateral verbs form their simple stem with a prefixed *n*, i.e., the *qal* is here replaced by the *nif'al*. The verbs belonging to this group, designated as the class *nabalkutu*, are modeled after the pattern of the *nif'al*-pi'el and the *šaf'el*-pi'el. Such adaptation was easy (a) because all the verbs belonging to this class have an intransitive meaning, although some of them have a transitive meaning as well; (b) because already in the trilateral system there are verbs whose *nif'al* has the force of the *qal*; and (c) because the *nif'al*-pi'el and the *šaf'el*-pi'el of the trilateral verb exhibit consonantal patterns suitable for this group of quadrilaterals.

The verbs of the class *šuharruru* have been treated in analogy with the *šaf'el* formation, because they begin with *š*. In general, however, the pattern of these verbs is not that of the pure *šaf'el* (*ušaḥrir*) but that of the *šaf'el*-pi'el (*ušharrir*). This development has come about partly under the influence of the *šaf'el* of the large class *nabalkutu*, i.e., *ušharrir* has been modeled after the pattern of *ušbalkit*, which

rhythmically imitates the *šaf'el*-pi'el *ušpazzir*, and partly under the influence of the general tendency to adapt the forms of the quadrilateral verbs to the pi'el pattern, a process which in this case was greatly facilitated by the accent in the present and the infinitive.

These are the central points of my thesis, and it is regrettable that Goetze relegates them into the background to concentrate on secondary matters. The reader thus gets an incorrect impression of the aim of my book.

2. Goetze begins his criticism with a question of method. I had endeavored through a survey of the treatment of the quadrilateral verbs in the other Semitic languages to gain a better foundation for the observations to be made in Akkadian. With reference to that, Goetze writes: "This is a widely practiced procedure, and it may have its good sides. Nevertheless, I think, it also has its dangers. It has in the past proved detrimental to Akkadian grammar." Hardly any scholar would deny that this procedure "has its dangers"; no field or procedure is free from dangers. The question is rather whether in following this procedure I have successfully avoided its inherent dangers or not. I would point to chapter iii as conclusive evidence that, with one exception—which has nothing to do with the quadrilaterals of the related languages (pp. 98–99)—the principles governing the Akkadian quadrilateral verb have been worked out on the basis of the Akkadian material itself. Goetze's further remark: "Really cogent principles for classification in any language can come only from that language itself," expresses my own conviction. My statement: "Before we take up the Akkadian quadrilateral verb, it will be advisable to cast a glance at the treatment of the quadrilateral verb in the other Semitic languages, in order to gain a better foundation for our observations," definitely implies that there is some other foundation on the basis of which our observations are to be made and that this foundation can be improved by first studying the treatment of the quadrilateral verb in the cognate languages. The study embodied in the first chapter was made not for the purpose of working out a system which might then be imposed upon the Akkadian

¹ To these examples is to be added the verb *pul-suhu*, occurring in the permansive form *pulsuhûku* (*Textes cunéiformes*, Vol. XVIII, No. 95:25).

quadriliteral verb² but to help us be on the lookout for phenomena in Akkadian—whether similar or dissimilar—which we might otherwise miss. This is a recognized, scientific method, which is as little “futile” in this field as it is, e.g., in the field of religion. I placed this chapter first because I regard it as a perfectly sound principle to proceed from the known to the unknown. The known elements are the extant quadriliteral verbs and formations in the other Semitic languages and the recognized principles by which they are governed. That I have pointed out the development of certain verbal forms, as presupposed by the system of verb formation, is quite secondary.

3. Goetze deplores the fact that I have omitted *utellû* and *nagarruru*, etc. I might, of course, have treated them very briefly; they were omitted for the following reasons. *Utellû* (= **utelluru*) is probably a further development of *elû*, as suggested by Thureau-Dangin, and may be regarded either as representing a rare stem of the triliteral verb system (cf. rare stems in Arabic) or as a quinqueliteral developed from a triliteral. The situation is almost the same as in the case of *utennu*, from *enênu*; in fact, the participial form *mutnennû* corresponds exactly to *mutellû*. As for *nagarruru*, etc., I regard them as forms of triliterals pure and simple, as the remnants either of an old nif'al infinitive (with secondary doubling of the second radical) or of a nif'al-pi'el. I have clearly stated why I did not omit *šuharruru*; for reasons given in my study, I regard the *š* as an integral part of the verb, just as in the case of *šugallulu*.

4. Goetze maintains that no “Grammar of Akkadian” can ever be written “because we have learned that no problem of Akkadian grammar can fruitfully be discussed without steady consideration of dialectical differences.” There is in this an element of truth, but we cannot subscribe to it fully. Grammars of Akkadian, as grammars of Greek, Latin, German, English, etc., will continue to be written. As for the implication that I have paid insufficient attention to dialectical differences I would

call attention to my express statement at the end of my introductory remarks to chapter ii: “Wherever it was deemed necessary I have indicated the period to which each form dates back and the locality from which each text has come; for in many cases this will provide a basis for tracing the historical development of the various systems into which these forms fit.” This principle has been observed. To illustrate: In the second chapter (pp. 46 ff.) I have arranged the forms of the present tense of *nabalkutu* in three different groups with the necessary indications of time and locality. Similar annotations are found again and again in this chapter. In the final chapter (pp. 117–24) I have at considerable length traced the historical development of these and other forms. Similar observations are found again on pages 127–28. Nor does Goetze adduce any examples to show where I have failed in this respect.

5. The question as to whether or not we are justified in applying the phrase “permansive participle” to certain adjectives, such as *paršumu* and *palkû*, will be treated at some length in Professor Poebel's forthcoming study on the pi'el, for which reason I shall not take it up here.

6. Goetze's discovery of the form *išqalal* in Old Babylonian omen texts is a welcome addition to our knowledge of Akkadian grammar, for it seems to prove that the first of the two suggestions made on pages 95–96 of my thesis is correct, viz., that originally forms like *ušha(r)rar* actually were *išha(r)rar*, corresponding to the qal form *ipa(r)ras*, and that the syllable *iš-* is not due to a careless pronunciation of *uš-*. If Goetze's form *išqalal* is a preterit, the present-preterit scheme *išqá(l)lal-išqalal* is, of course, analogous to the present-preterit scheme *iktá(š)šad-iktášad* of the I, 2 stem. We do not have before us a special type of quadriliteral. That *šugallulu* and *šaqálu* may be etymologically related is a view which I also share, as Goetze has observed. But since the *š* is in either case an integral part of the verb, this question lies outside the scope of my thesis.

7. Goetze seems to think that *paráru* developed into two directions—into the triliteral forms *purrruru*, etc., and the quadriliterals

² In fact, on pp. 8, 15, and 21 I refer to phenomena in Akkadian grammar in partial support of views expressed on phenomena in Arabic and Ethiopic.

naparruru and *šuparruru*. I myself hold that *naparruru* is a derivative of *parāru* (cf. point 3). Nor do I want to deny the possibility that *šuparruru* and *parāru* may ultimately be related. Goetze's quotation for an intransitive *parāru* I, 1 appears to leave open the possibility of a IV, 1 form (i.e., *iparraru* = *ipparraru*) with the meaning "to be separated" or the like (cf. *BRM* IV, No. 22:23; *CT* XXVII, Pl. 46 rev. 11; XL, Pl. 38:23). The question of relationship is further hampered by the fact that the meaning of *naparruru* is not sure. In the light of the available evidence, the safest and most natural course to follow is to regard *parāru* and *šuparruru* as two distinct verbs. But if fresh evidence will show that *šuparruru* is a derivative of *parāru*, we must consider it a *šaf-el-pi-el* and not "a genuine *šaf-el*."

8. Among Goetze's arguments against my explanation of *šukēnu* and *šupēlu* is his contention that the *šaf-el* "based on a formation *qatti/ulu*" means "brought into some state and remain in it continuously." The argument here involved is based on his conception of the *pi-el* and the permansive; and since Professor Poebel has discussed this matter in his forthcoming study on the *pi-el*, I shall not dwell on it here.

A few years ago, Professor Poebel came across a passage in *KB* III, 1, p. 138, which establishes beyond doubt the existence of a quadrilateral verb *šukēnu*. He will discuss this passage in his book on the Khorsabad king list, but with his permission I shall briefly summarize the results of his discovery. In the passage referred to, Agūm calls himself *šarru muš-ta-aš-kin kib-rat ar-ba-i*. The two *š*'s in *muštaškin* prove conclusively that the verb cannot be derived from *kānu*, while the context shows that *šakānu* is likewise out of the question. There remains, therefore, only the verb *šukēnu*.³ The passage in question is to be translated: "The king who has caused the four regions of the earth to prostrate themselves." The phrase is analogous to *šarrum mu-uš-te-ēš-mi ki-ib-ra-at ar-ba-im* (King, *LIH*, II, Pl. 193:34-35; Harper, *CH*, Pl. VII: 10-12).

³ Per se, one could, of course, read also *muštašqt* (thus Hommel in *OLZ*, Vol. XII [1909], col. 109); but that reading does not yield satisfactory sense.

Two further objections on Goetze's part find expression in the questions: "Would one not expect to find forms like **ušap-il* and **uša^k-in*? And why should they have been abandoned in favor of **ušpa-il* and **uška^k-in*?" On our view, forms like **uša^k-in* and **ušap^{il}* not only may have existed (cf. *šuḥarruru* and *šuḥruru*, *uṣqallil* and *uṣaqlil*, etc.) but may perhaps be found at any time. As for the second question, forms like *ušap-il* and *uša^k-in*, if they ever existed, were not "abandoned" in favor of *ušpa-il* and *uška^k-in*; according to the system of verb formation presupposed by the Akkadian language, *ušpa-il* and *uška^k-in* were the more original forms (as I have pointed out on pp. 101-5 and 135) and were retained probably under the influence of the general tendency of the quadrilateral verb to model its forms after the *pi-el* pattern of the triliteral verb—a statement which answers Goetze's argument that "they would more easily have become associated with forms like *uṣapris*, the number of which is unlimited."

As regards Goetze's criticism with reference to the bases **šparaš*, **šparis*, **šparus*, etc., these bases are obviously "purely speculative" in the sense that they represent unconscious mental patterns and not spoken forms. See Professor Poebel's statement in *OLZ*, Volume XIX (1916), col. 48, n. 1: "Es sei ausdrücklich darauf hingewiesen, dass die eben angenommenen Grundformen nur Systembedeutung haben, d.h., dass sie sich nur auf die dem Verbsystem zugrundeliegenden schematischen Formen beziehen; Formen wie *štaqatal* haben selbstverständlich niemals aktuell existiert, sind aber doch von der Sprache als Voraussetzung für die dem System angepassten Formen benutzt worden. Wie die Formen entsprechender Funktion vor dem Inkrafttreten dieses Systems gelaute haben, das lässt sich gegenwärtig nicht mehr feststellen." I do not attribute any more significance to these bases as proof for Primitive Semitic than does Professor Poebel. This is evident from my reference to "the arrangement of the base vowels as presupposed in the Semitic system of verb formation" (p. 102). Goetze goes much too far when he asserts that the assumption of such patterns has "no justifiable basis." I consider

as especially convincing a comparison of the nif'al infinitives in the various Semitic languages and an inquiry into the reason for the presence or the absence of the vowel after the first radical.

Goetze's final objection to my treatment of the verbs *šukēnu* and *šupēlu* again concerns a problem which admits of a very easy solution. When I stated that *šupēlu* could go back only to **šupā-lum* < **šupā-ulum* < **špā-ulum*, I merely traced the original development of *šupēlu* as presupposed by the system of verb formation, with the vowel *a* still unaffected by the weak radical. At some indeterminable period or periods the forms **šupa-ulum* and **šupa-lum*, of course, developed into **šupe-ulum* and **šupe-lum*, respectively. Footnote 16 on page 110 contains a clear indication as to the solution of the problem.

9. The closing paragraph of Goetze's review is rather unexpected. Goetze agrees that the class *paršumu* follows the pi-el pattern and that the large class *nabalkutu* is modeled after the nif'al. As for the class *šuḥarruru*, he again agrees that these verbs inflect as I have stated, only he denies that some of them are actually quadrilaterals, thus adhering to the old view that some of the verbs of this class are trilaterals, a position which I maintain is impossible to defend successfully. Goetze even lays special emphasis on the fact that in the third chapter I have made "some valuable observations on dialectical differences." Yet the best he can say about the book in general is this: "To sum up, Heidel's book has its value as a collection of material." It is true, some of the observations contained in my study have already been made by Delitzsch, Meissner, and Ungnad, but most of them are new, as was realized by Albright, who, although critical of some aspects of my thesis, said of it that it is "an exemplary linguistic study" in which "the Accadian material has been covered so thoroughly and so well that all previous discussions of quadrilaterals are rendered antiquated" (*BASOR*, No. 79 [October, 1940], p. 36).

Goetze's further statement: "The linguistic analysis is in almost every respect irreconcilable with my own views," is, of course, no proof that my conclusions are wrong, as Goetze

himself would admit; his view that "the reconstruction of Primitive Semitic which the book presupposes diverges from everything so far presented," is correct only if we are to ignore completely Professor Poebel's remarks on these matters in *OLZ*, Volume XIX, and in his *Studies in Akkadian Grammar*.

Goetze also charges that "the author approaches the facts of the language with a ready-made and preconceived reconstruction of Primitive Semitic." In a letter dated April 17, 1945, he explains this statement as follows: "It is a feature of your book that in places where there are difficulties to be explained the reader finds a statement like this: 'we have to begin with the rule established by Professor Poebel, etc.' This is what I call 'approach the language with a ready-made and preconceived reconstruction of Primitive Semitic.'" The statement of mine to which Goetze objects occurs on page 102; a similar one is found on page 117. In each of the two instances I summarize an unpublished rule established by Professor Poebel for the Akkadian trilateral verb.⁴ On seven other pages⁵ of the third chapter I make use of further observations by Professor Poebel; but all of these have already been published by him in his *Studies in Akkadian Grammar*, as I have expressly pointed out. Moreover, in about half of these cases I am not even concerned about Primitive Semitic.

Goetze's final charge: "It is definitely to be regretted that the author deviated so far from standard views without giving his reasons for the deviation," is not substantiated by the facts. I have clearly stated my reasons for the course which I have followed and thereby have indicated my reasons for deviating from the views of others. Furthermore, where it was considered necessary, I have said very expressly why I could not concur in the views held by others.

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⁴ But cf. *AJSL*, LVI (1939), 225 ff. and 384 ff., where Professor Poebel applies the rule set forth on p. 117 to Old Hebrew.

⁵ Or nine other pages, if we include the two references on pp. 125 and 129, where I build on a discovery by Professor Poebel on which he has promised to write an article. On the results of this discovery Goetze finds himself in agreement with Professor Poebel.

ANSWER TO DR. HEIDEL'S REPLY

The editor has kindly brought Dr. Heidel's reply to my knowledge and asked for my reaction.

Nothing of what Heidel says causes me to change the evaluation of his book contained in my review. In short: The philological work he did when collecting and arranging his material is sound and valuable; the linguistics employed in explaining them seems to me

whimsical and objectionable. Our respective opinions on the methods and the aims of comparative linguistics differ so fundamentally that any discussion is out of the question here.

Since Heidel quotes Albright's short review in *BASOR*, No. 79, page 36, I urge the reader to look it up and read it to the end.

ALBRECHT GOETZE

Currency in Roman and Byzantine Egypt. By LOUIS C. WEST and ALLAN CHESTER JOHN-SON. Princeton: Princeton University Press; London: Humphrey Milford (Oxford University Press), 1944. Pp. 195. \$3.00.

A technical work of this kind can be adequately appraised only by an expert in the numismatic history of the period in question. But the general historian of the Hellenistic-Roman Near East can see at once from the authors' methods, their use of abundant and diverse source material, and their knowledge of the relevant literature that they have made a valuable contribution to the economic and, incidentally, the political history of Egypt in the early centuries of our era.

The thirteen chapter headings best indicate the contents of the book: "The Silver Coinage of the Roman Period," "The Copper Standard and Bronze Currency," "The AI KAI Formula," "Payments in ΠΤΗΠΑΙ Drachmae," "Accounting Practices and Mathematical Calculations," "Monetary Terms in the Roman Period," "Egyptian Hoards," "Price Levels in the Roman Period," "Egyptian and Imperial Exchange," "Byzantine Issues from the Alexandrian Mint," "Monetary Terms in the Byzantine Papyri," "Local 'Gold Standards,'" and "The Relation of Gold to Bronze." These are followed by seven tables of coin issues, weights, etc., and ten literary documents (nine of them papyri) that throw light on currency problems. Finally, there is a bibliographical note and an index.

Among the bits of information that especially interested the reviewer is the statement (p. 2) that the tax imposed on the Jews by Vespasian, sometimes called *timē duo denariōn*, was paid in tetradrachms; that the Alexandrian tetradrachm was a better coin than the denarius and that neither the Ptolemaic silver of Augustus nor the billon tetradrachms had any value outside Egypt except as bullion (p. 5); that the use of the six-obol silver drachma in Roman times is best explained as a survival of Ptolemaic tradition (p. 10); and that *δυνατός* is used with several different meanings in the Roman period (chap. iv). There is a good discussion (pp. 80-81) of the probable causes of the rise in prices in the second and third centuries. On pages 168-69 the authors summarize their findings on the relative value of gold and bronze in seven brief paragraphs, of which two statements may be quoted. "The thoroughgoing reorganization of the monetary system which had been begun by Diocletian may be considered completed by A.D. 324 when Licinius was finally overthrown. . . . In Egypt as elsewhere gold was definitely the basis of the monetary system."

These few examples of the general conclusions reached on the basis of careful inquiry may suffice to show why the work is likely to be used for a long time as a work of reference by the general historian of antiquity.

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TELL HASSUNA
EXCAVATIONS BY THE IRAQ GOVERNMENT DIRECTORATE
GENERAL OF ANTIQUITIES IN 1943 AND 1944

By
SETON LLOYD and FUAD SAFAR

With Prefatory Remarks by
ROBERT J. BRAIDWOOD

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PREFATORY REMARKS

ROBERT J. BRAIDWOOD

THE following report, dealing with one of the very earliest bulks of village materials in the Fertile Crescent, is of tremendous importance to our understanding of the beginnings of settled life in the area where, subsequently, urbanization made its first appearance. The Tell Hassuna materials are a very significant addition to the raw stuff on which must be based our interpretations of the origins of civilized life in the Near East. In carrying on two seasons of excavation at Tell Hassuna in these troubled times, the Iraq Government's Department of Antiquities thus continues a program which keeps the scholarly world heavily in its debt.¹

Our knowledge of the earliest village materials of Western Asia, to this date, has been briefly indicated in a recent issue of this *Journal*.² Essentially, the known materials seemed to suggest a sequence of some six fairly distinct prehistoric³ assemblages in north Iraq; fewer in some of the surrounding areas. The earliest of

Fuad Safar, *ILN*, III (July 25, 1942), 108-9, on Wasif. Other activities have gone on in the Islamic period at Samarra and in Akkadian to Hellenistic levels at Der.

² Braidwood *et al.*, *JNES*, III (1944), 48, n. 1, and esp. pp. 65-69 with Table 1. (NOTE.—A typographical error occurs in Table 1; the second item in the middle column should read "North Iraq Ubaid," not "North Iran Ubaid.")

³ I.e., prior to materials equated on a comparative basis with the old-style "Jemdet Nasr period" (cf. Delougaz and Lloyd, *Pre-Sargonic Temples in the Diyala Region* [OIP, Vol. LVIII (Chicago, 1942)], p. 8 and *passim*, on "Jemdet Nasr" vs. "Proto-Literate").

¹ See also Lloyd and Safar, "Tell Uqair," *JNES*, II (1943), 131 ff.; Taha Baqir, "Iraq Government Excavations at 'Aqar Quf," *Iraq*, Supplement 1944;

these assemblages was represented in the Mosul region of the Tigris Valley, but only in the minute area exposed at the bottom of the Nineveh test shaft.⁴ The information on this so-called "Ninevite I" material consisted of the meager description and some two dozen line drawings of potsherds, a few characterless small objects, and pig bones.⁵ As well as being a thing of little substance, the Ninevite I situation was complicated by the fact that at least some of the sherds were of the type recognized as the Samarran painted style.⁶ The latter highly decorative type of ceramic was believed to be the most characteristic trait (and was, in fact, the only known trait) of the assemblage assumed to succeed that of Ninevite I.

The Samarran painted sherds in the Ninevite I context had to be accounted for either by stratigraphic intrusion or as the first trace of the incoming assemblage which was believed to replace Ninevite I. The latter alternative was favored, and it

might have been postulated that, after an indefinite *floruit* of its own, the Ninevite I assemblage was gradually submerged by the assemblage of which the Samarran painted style was the most extravagant (and only known) part.

The recent detailed consideration of the Samarran painted style⁷ ended with this tacit assumption: that, while only the painted pottery, and a few flints from Baghouz, were known, a full Samarran assemblage must have existed and simply awaited rediscovery, whereupon it would take its place as the second of the North Iraq sequence. Following McCown,⁸ it was assumed that the Samarran painted style was Iranian.

The remaining four of the prehistoric village assemblages of the Mosul region,⁹ while being generally confirmed as to sequence at Tell Hassuna, did not occur in great quantity, so that we are not concerned with their details here.

It will be apparent from the body of this report how the Tell Hassuna materials have vastly elaborated this tentative picture of the earliest village cultures in North Iraq, and also wherein they indicate how the picture was in error. Lloyd and Safar's report indicates the sequence shown in Chart I.

⁷ *JNES*, Vol. III, esp. pp. 65-69.

⁸ Cf. D. E. McCown, *The Comparative Stratigraphy of Early Iran* (SAOC, No. 23 [Chicago, 1942]), pp. 35-36; *JNES*, I (1942), 437-38. However, in a letter of April 15, 1945, Captain McCown wrote: "My attitude is that we do not know whether Samarra, or its Iranian counterpart, is earlier, so we cannot say that it spread from Iran . . . especially since we are without a nice series in Iran developing into a Samarra-like pottery."

⁹ As indicated in Table 1, *JNES*, III, 67; namely, Halaf (Arpachiyah variant), Transitional Halaf-Ubaid, North Iraq Ubaid (cf. n. 2 above), and North Iraq Uruk. In passing, it might be noted that the Oriental Institute has very recently received H. Schmidt, *Tell Halaf*, Vol. I (Berlin, 1943), and that there is now no question but that the type site also contains materials of the Transitional Halaf-Ubaid (cf. Amouq D) and of the Ubaid (cf. Amouq E) types, as well as the classic Halaf material.

⁴ M. Mallowan, *AAA*, XX (1933), 127-86 and esp. Pl. LXXIII. Other claims of similar or equally early materials in the Tigris drainage await substantiation; e.g., those cited by V. Christian, *Alturmskunde des Zweistromlandes* (Leipzig, 1940), pp. 91-95, as "Saktchegözü-Stufe." The Hassuna materials now emphasize the misleading character of Christian's nomenclature when applied to the Mosul region. Mr. Lloyd, in correspondence, disclaimed any resemblance between the Hassuna materials and "Gawra XXVI" (cf. E. Speiser, *Asia*, XXXVIII [September, 1938], 536-43), on the basis of such information or materials as he has available in Baghdad for making judgment.

⁵ This is no reflection on Mallowan or his methods; had his budget been larger, he would undoubtedly have opened more areas and have had more material to present. His Ninevite I pottery, as presented, consists mainly of painted wares, but includes painted-and-incised and simply incised wares; the latter is "the most important feature of Nin. I" (*loc. cit.*, pp. 149-51, Pls. XXXV-XXXVI). A few sherds of "burnished ware" and "slip ware" are mentioned but not illustrated. The small objects consist of: crude clay lumps (found "in the debris of a hut settlement" [hence architecture?] classified as jar sealings but bearing no design (*ibid.*, p. 134, Pl. LXV: 1, 2, 5); a "dry clay" whorl (*ibid.*, Pl. LXIX:6); flint and obsidian, of which one characterless obsidian blade is shown (*ibid.*, pp. 143-44; Pl. LXVII:21); and the bones of pig (*ibid.*, p. 179).

⁶ *Ibid.*, Pl. XXXV: esp. 2, 9, 13; cf. *JNES*, III, 66.

CHART I

LEVELS	STRATIGRAPHY AND ARCHITECTURE	DETAILS
XV		Disturbed materials, which include sherds of Assyrian, Ubaid, and Halaf type
XIV		
XIII		
XII		Appearance of Ubaid type of pottery
XI		
X	This range of floors appeared only in the small sounding, 2, on the crest of the mound, and in a connecting trench; total depth—ca. 4.5 m. No architecture is presented; little was encountered	Main range of Halaf pottery. A few specimens of earlier pottery persist, especially in the lower levels (cf. Fig. 5)
IX		
VIII		
VII		
VI		
V	Called the "Hassuna levels," this range of floors is characterized by adobe architecture throughout; total depth—ca. 4.2 m. The structures are all of domestic type; they indicate several-roomed buildings of a definitely permanent character	This range includes three pottery wares: the "Hassuna archaic," the "Hassuna standard," and the Samaritan. The first seems to be restricted to the lower levels, the third to Level III and above. The first two wares are divided into groups, based on significant decorative treatments (cf. Fig. 5), and the wares themselves are directly comparable to those of Ninevite I. Various small object industries in clay, stone, and bone are well represented. While no grain is described (cf. p. 268), the sustenance pattern is indicated by sickle blades, silos, and the bones of sheep and/or goats, cattle, and some wild or probably wild forms. Burials appeared, but studies of the human physical types are not yet complete*
IV		
III		
II		
Ic		
Ib		
Ia	Third camp site Total depth Second camp site ca. 1.0 m. First camp site	Classified as "neolithic," a sequence of hearths and, presumably, tent sites. Pottery either coarse or burnished ware; a significant series of chipped and ground stone tools. The sustenance pattern said to be that of herdsmen and hunters
	Virgin soil	

* It might be considered whether the adjectival form of the site name, "Hassunan," should be used to denote this assemblage. Such a usage could be convenient, but would depend on general agreement as to what a "Hassunan assemblage" included; cf. the points raised below.

Quite naturally, there will be differences of opinion as regards the interpretations which Lloyd and Safar draw from their materials.¹⁰ We do not intend to examine here the details of the various interpretations they offer but rather mean to indicate only matters related to the two major questions which we think the report poses. It must be understood that the points which follow arise from our general understanding of prehistoric Near Eastern materials and from such information on Hassuna as the following report contains. We have not, of course, been able to inspect the Hassuna materials first hand; such being the case, Lloyd and Safar's opinions must bear much more weight than our own.

In the first place, it seems less convincing to us than to Lloyd and Safar (cf. pp. 262, 272, below) that the materials of the three camp sites of Level Ia are so separated from those of the Hassuna levels which follow. We are not necessarily inclined to see the "beginning of a well-defined epoch" with the first appearance of painted pottery, especially if the phrase has any implication of broad ethnic or cultural changes. Stated positively, we should imagine that the materials of Level Ia reflect a parent-group whose descendants elaborated the assemblage into the form seen in Levels Ib-VI. This does not preclude the possibility that some of the new traits may be borrowed ones. Lloyd and Safar themselves indicate the possibility of continuity in several instances.¹¹

¹⁰ And, of course, with their interpretations of materials from other sites, with which we also do not always agree, e.g., their interpretation of the Mersin materials.

¹¹ E.g., the Level Ia wares are classified under "Hassuna archaic" in Fig. 5, and not in a separate column; the characteristic Level Ia straw tempered wares are said to persist "from level Ib upward," although with increasing rarity (p. 277); the idea offered that the profiles of "Hassuna level" grain bins originated in Level Ia jar forms (p. 268). It is our

The second major question posed by the Hassuna material regards the status of the Samarran painted style. Was this distinctive pottery ever part of an autonomous assemblage of its own,¹² or was it simply a kind of "luxury ware" factor in the general North Iraq assemblage of Hassuna III-VI type? Our present speculations have left us uncertain as to how the possible relationships of the Samarran and the Hassuna archaic and standard wares might have been interpreted, supposing that Tell Hassuna had been excavated before Baghouz and Samarra.

Lloyd and Safar, after considering the second alternative (p. 260), were evidently convinced by our, and McCown's, published arguments¹³ as well as by their own assessment of the facts, and have considered the Samarran pottery to be derived from Iran (pp. 265-66). Since we are now confronted with two painted styles which are not only contemporary with but even earlier than the Samarran style (at least at Tell Hassuna itself), we must urge the full consideration of the second possibility. It is entirely conceivable to us, for example, that some single group of (perhaps even traveling) craftsmen¹⁴ might have appeared within the general North Iraq "Hassunan" milieu, developing a very special style of their own out of the Hassuna archaic and standard tradi-

own opinion that the main lithic types are set in Level Ia, and seem to be continued.

Apropos of Level Ia generally, we accept its apparent "neolithic" character, but again doubt the significance of a terminating "cultural revolution" marked simply by the appearance of painted pottery, and should much prefer what is implied by Childe's definition of the neolithic (cf. *Man Makes Himself* [1939], pp. 74-117) to that used here (cf. p. 264). The sustenance pattern indicated for Level Ia (p. 262) might include "farmers" if the recognition "hoe" is correct for the objects of Figs. 19-20, as Lloyd realizes.

¹² As we ourselves suggested (*JNES*, III, 65 and *passim*) and as Lloyd and Safar imply (pp. 266, 281-83, below).

¹³ Cf., however, n. 8 above.

¹⁴ Cf. *JNES*, III, 64, n. 39.

tions in painting.¹⁵ Such a supposition would meet the points raised by Safar (p. 282) in favor of diverse origins for the Samarran painted style as against the Hassuna archaic and standard painted styles.¹⁶ It would also solve the whereabouts of the elusive "Samarran assemblage" by making the Samarran pottery one trait of a developed North Iraq "Hassunan assemblage," of which Levels III-VI at Tell Hassuna itself were simply one manifestation.

Whatever may be the exact interpreta-

tion of the available and the still undiscovered facts, it is clear that the full Hassuna range, Levels I-VI, yields the material aspect of an extremely interesting and important cultural milieu. In probable contact with, but differing essentially from, the earliest village milieus of both Syro-Cilicia and Iran, the culture reflected by the Hassuna materials must stand in an ancestral sense to the great Mesopotamian cultural tradition. For their exposure and presentation of it, Lloyd and Safar deserve the very highest praise.¹⁷

I. INTRODUCTION

SETON LLOYD

The modern village called "Hassuna," which houses about twenty families of Jabur Arab cultivators, lies five miles northeast of Shura and twenty-two miles due south of Mosul. The prehistoric mound (Pl. I, 1) which takes its name from the village is situated a thousand yards due north of the village at a point where two small wadies meet and continue as a single tributary of Wadi Qasab (Fig. 35). It rises out of a shoulder of arable land between the two depressions, reaching a maximum height of 7 meters above an outcrop of limestone in the nearest perennial water channel. The entire area covered with occupational debris could be inclosed in a rectangle of about 200 × 150 meters. Half a mile farther down the same wadi and east of the modern village there are, on the right bank, traces of a considerable medieval Arab settlement with ruins of stone houses and, on the left, a

second mound of about the same dimensions as Tell Hassuna with sufficient surface material to suggest that it represents a period intermediate between the prehistoric and Islamic sites already mentioned. Where the Mosul track crosses the wadi there is a stone well still yielding sufficient water for the flocks of the village.

Shura and Hassuna lie approximately in the center of a wide undulating upland, limited on one side by a gypsum escarpment which falls away several hundred feet to the Tigris Valley and, on the other, by the uncultivable desert of al-Jasirah. It is crisscrossed with wadies which carry water in the spring, and many ancient mounds of all sizes testify to the agricultural potential which the winter rainfall

¹⁵ We find ourselves unable to accept the conclusion that the Samarra and Baghouz occurrences consisted only of the Samarran painted pottery, as is now reported.

For an account of the developments of new styles of pottery decoration, cf. Ruth Bunzel, *The Pueblo Potter* (New York, 1929), esp. pp. 83-89.

¹⁶ Detailed microscopic analysis of the three wares involved here might be very enlightening.

¹⁷ We feel particularly honored to have been asked to edit the report for content, to have been in correspondence with Mr. Lloyd regarding Hassuna since the first season's excavations there, and to have had him accept several of our suggestions as to quantitative treatment, terminology, etc. Certain minor inconsistencies and typographical errors appeared in the manuscript only in its final checking; there has not been time to rectify these by mail, and they are indicated by initialed footnotes. Several short sections of the manuscript, not particularly germane to the argument, have been left out, owing to government restrictions on paper for the *Journal*. For detailed lists of the materials illustrated in the figures and plates see pp. 286 ff.

creates. Both Samarran and Halaf sherds are well represented in surface finds from the district, and unmistakable fragments of Hassuna pottery were found by a member of our expedition on a neighboring mound much larger than ours.¹

Tell Hassuna was discovered in 1942 by Sayid Fuad Safar, M.A., when he was operating as Inspector of Antiquities with Land Settlement officers. The surface pottery was plentiful, and the collection which he brought back to the Iraq Museum included a large proportion of fragments similar to the incised ware of Ninevite I as well as some authentic Samarran painted ware, including an almost complete bowl. There were several other Samarran fragments, of the type with incisions as well as paint, and, since the collection included fragments of the now familiar painted-and-incised Hassuna ware also, it could be inferred that in this mound one might study the evolution of the painted Samarran ware from the incised ware of Ninevite I through an intermediate stage where both forms of decoration were combined. This theory in the course of time proved incorrect, but its stimulus was in any case small compared with that of the long-awaited opportunity of studying a Ninevite I settlement as near the surface as one assumed this to be.

Arrangements were accordingly made for a test excavation to be undertaken in the spring of 1943, and the work, which began on April 2, lasted just over five weeks. The results were so surprising that work was resumed in the following spring, when a second season of six weeks was brought to a successful conclusion on May 10. The total finds as they stand now seem

to justify fairly definitive publication, and, unless in the future some particular aspect of the new material appears to warrant further study, the excavation of Tell Hassuna may be considered closed.

At the opening of the first season about one-third of the mound on the southeastern side was under cultivation (lentils). The remainder had a thick covering of grass and flowers (see Pl. I, 1). After a careful study of surface indications we began the first sounding at the edge of the cultivation about 20 meters southeast of the summit, and to our great satisfaction this subsequently proved to have been the exact center of a pre-Halaf settlement. During the following weeks an area of about 50 square meters (Sounding 1; see Fig. 35) was carried down through seven principal occupation levels (now numbered from the bottom upward) to virgin soil, which was reached 7 meters beneath the summit of the mound (see Pl. I, 2, and Fig. 33). After a meter of confused surface material including a rather large proportion of Halaf and Ubaid sherds, the first definite occupation level (V) was reached, with ruins of adobe houses and a consistent manifestation of a culture apparently identical to Ninevite I combined with a large proportion of Samarran pottery.

Later in the season it was decided to check the stratification of the mound by making a trial pit (Sounding 2) 23 meters to the northwest (see Fig. 35). To our surprise this encountered successive occupation levels of the Ubaid and Halaf periods and did not, in fact, produce a single sherd of Samarran or Ninevite I character until it reached a point 3.5 meters beneath the summit. This we took to imply that, at the end of the Samarran period, the occupation center of the mound had shifted northwestward (away from the confluence of the wadies) and that the earliest Halaf occupation had been beside and only par-

¹ Since the excavations closed, sherds of both "Hassuna standard" and "Hassuna archaic" wares have been brought for our inspection from a mound called Tell Bayar in the Ain Sifni district northeast of Mosul.

tially overlapping the mound which already existed.

The work of the second season consisted of extending Sounding 1 eastward and northward until it comprised an area of about 2,500 square meters (see Fig. 35)² and carrying down these extensions through the successive levels already observed. Various circumstances made it necessary slightly to restrict the sounding when the lowest subdivision of Level I was reached, but this, as will be seen later, did not impair the value of the evidence which we obtained of the earliest settlers. In order to confirm our previous inferences from Sounding 2, we simultaneously enlarged it by cutting a trench 2 meters wide, linking it to Sounding 1 (see Pl. I, 3). The interesting result can be seen in the section of the mound which we have now been able to draw (Fig. 33).

Among the finds from Tell Hassuna, as is usual with prehistoric sites, the pottery contributes most to the historical picture which the mound has to offer. The best preliminary impression of our major results can therefore be obtained from a glance at the pottery chart (Fig. 5). The classification of the pottery for the purpose of this chart was greatly simplified by the discovery at an early stage in the excavations that, from the second level above virgin soil (Ib) up to the arrival of the Halaf people at Level VI, we were dealing with a consistent and extremely individual local culture whose development and evolution could be studied through a succession of clearly marked stages.

Running parallel to this culture and surviving it into the lowest Halaf levels there was in Levels III-VIII an extraneous culture known as the Samarran, which was represented by ample ceramic evi-

dence. From the first arrival of the Samarran pottery to its ultimate disappearance there was no perceptible sign of its style or material being in any way influenced by the indigenous Hassuna potters. Similarly, although Samarran pottery was evidently treated locally as a superior commodity, there were only rare instances of any local imitation of it or of adaptation of Hassuna pottery to the Samarran style. The principal evidence for the extraneous character of the Samarran pottery is the existence and partial evolution of the various forms of Hassuna ornament before its arrival and its survival (presumably as an imported commodity) for some time after the indigenous Hassuna culture had been supplanted.

The Hassuna pottery itself consists of what we have called "standard" and "archaic" pottery (see Fig. 5). The former, which in its fully developed form occurred from Level III upward, can conveniently be divided into three classes: painted, incised, and painted-and-incised—all of which, curiously enough, were represented among the sherds from Level I at Nineveh. The undecorated pottery in these levels has little significance. In Levels Ib-II burnishing was fairly general among the plain pottery, and the painted ware was characterized by the use of thick glossy paint or of mat paint on a burnished surface. Wherever deep soundings have been made throughout Palestine, Syria, and Cilicia, this phenomenon is common in the approaches to the neolithic,³ and at Hassuna we have provisionally designated such pottery as "archaic." The two clearest lines of demarcation are between Levels Ia and Ib and at Level VI (see Fig. 5). These, in fact, mark, respectively, the beginning and the end of the local Hassuna culture. From

² [We are unable to check this area with the plot plan.—R. J. B.]

³ Cf. Jericho, Megiddo, Judaidah, Sakje Geuzi, Carchemish, and Mersin.

Level VII upward (occupations, of course, represented in Sounding 2 only) it has been entirely replaced by Halaf material, while in Level Ia, directly upon virgin soil, none of the elements by which it is characterized had yet appeared. The whole of the material from Level Ia has, in fact, to be treated as a separate assemblage. Apart from eight fragments of burnished bowls, one bearing a trace of paint (Fig. 7:1), the pottery, which is plentiful, consists entirely of a very coarse straw-tempered ware with a dark core. Combined with the flint- and stone-polishing industries, this suggests that there need be no hesitation in applying to Level Ia the designation "neolithic," regardless of which current definition of the word is to be accepted (see p. 264).

Equal in importance to the technological results in the ceramic sphere is the social picture produced by the excavations of the earliest settled community yet found in Mesopotamia. There is abundant evidence of the beginnings of agriculture. Actually, our first neolithic settlers left on the clean soil of the wadi bank evidence which suggests a society of herdsmen and hunters rather than farmers. All traces of their huts or other shelters had disappeared, but the simple domestic assemblage which remained in place around the ashes of their fires included obsidian lanceheads, sling ammunition, implements for dressing skins, and a great quantity of animal bones. The only evidence to show that they sowed as well as reaped consisted of large stone "hand-axes," almost always with traces of the bitumen by which they were attached to wooden hafts, probably for use as hoes in breaking the ground.

Levels Ib and Ic, however, manifest a series of innovations which constitute an important first step in the evolution of an

agricultural society. The settlers now live in adobe shelters. Again they break the ground with stone-headed hoes, but their flint-toothed sickles also are found almost intact. There are corrugated terra-cotta trays, which seem to us to have been used for "husking" wheat or barley, and sunk beneath the floors of the houses are great spherical grain bins built of clay, coated outside with bitumen and sometimes lined with gypsum plaster. Flour is ground between two flat-sided basalt rubbing-stones, and bread is baked in clay ovens only slightly different from the modern Arab *tanour*. Furthermore, the potters' art has improved immeasurably. Comparatively finely made vessels are now decorated with paint or point-scratched designs, and the main elements of the Hassuna standard style are already in evidence. There are even crude attempts to combine the two forms of ornament. By the time the imported or purchased Samarran pottery appears on the scene in Level III, the settlement has become a village in the accepted sense, and the adobe houses show the first clear signs of planning. Their rooms are usually grouped around or beside an open courtyard where the flocks could be inclosed at night.

All through the so-called "Hassuna" levels there is considerable use of flint and obsidian. Throughout the entire 7 meters of occupational debris there was no trace of copper. Other minerals found in all levels included quantities of red ochreous paint, probably of the type used for decorating pottery, antimony, from which today Arabs make kohl for the eyes, and malachite, from which in Egypt the Badarians made a paste for the same purpose.⁴

Personal ornament seems to be confined to the simplest bead forms and amulets. Apart from a female face modeled and

⁴ See Brunton in *Antiquity*, III (1929), 456-67.

painted on a Samarran vase (Pl. XVII, 2), the only representations of human beings are crude and rather incomprehensible unbaked clay figurines of the primitive "mother-goddess" type.

At almost all levels we had the good fortune to find human remains. Infant burials in pottery jars beneath the houses were fairly plentiful. These were supplemented by an undisturbed, orderly burial in Level Ic and an adult skeleton in Level Ia which may have been buried in orderly fashion. Two adults had been thrown apparently without ceremony into a grain bin of Level III. Some bones found in Level IV may represent a sectional burial. A preliminary examination of the animal bones has indicated the presence of toad, rat or similar, ox, ass, sheep and/or goat, possibly gazelle, wild pig, and hare (see p. 284).

The post-Hassuna finds were limited by the size of Sounding 2. They contributed nothing new to our already extensive knowledge of the Halaf and Ubaid cultures⁵ but merely served as a most convincing stratigraphical check.

It should perhaps be added that anyone observing these excavations with the broader view of the historian would have been, above all, impressed by the evidence here of the continuity of human life in remote places. There is little doubt that farming people of one race or another have lived and worked at Hassuna almost without interruption for close to seven milleniums; and today, moving for a few weeks among the peasants of the modern village, we were repeatedly confronted by aspects of their life and even details of their simple paraphernalia which have scarcely changed in that time. As we worked on the mound, the barley ripened in the fields around us, and on the day in May when the work was completed the local workmen returned immediately to the village to fetch their sickles. The harvest began with a tiny ceremony (Pl. XXI, 2), and, as the long line of men stooped to their work, one saw beyond them the countless generations of their predecessors carrying the burden of human endeavor out of the mists of the past.

II. HASSUNA'S PLACE IN PREHISTORY

SETON LLOYD

In an attempt to assess the correct location of the Tell Hassuna finds in the prehistoric sequence, a difficulty which confronts one is the equivocal character of the present terminology. The term "neolithic," for instance, has at times been most arbitrarily applied. The earliest levels, for instance, at Sakje Geuzi, Judaidah,⁶ and Nineveh itself have all been

placed in this category, while absence of copper provides negative evidence for treating the Samarran pottery⁷ and, in fact, the whole range of the Hassuna developments in the same sense. On the other hand, in Palestine, Iliffe⁸ is so cautious as to group the whole of the earlier village cultures from the Tahunian upward under the noncommittal term "neo-

⁵ Any attempt to study the several stages in the evolution of the Tell Halaf style and its transition to Ubaid must await the publication of the University of Pennsylvania's work at Tepe Gawra.

⁶ [Not as yet by its excavators.—R. J. B.]

⁷ As Braidwood points out in *JNES*, III (1944), 65, n. 41, the cupreous metal objects from the name-site cannot be admitted as evidence.

⁸ J. H. Iliffe, *A Short Guide to the Stone and Bronze Ages* (Jerusalem: Palestine Archaeological Museum, 1937).

lithic-chalcolithic," while Childe⁹ even admits the possibility that the Natufian may more correctly be called neolithic.

Perhaps the most interesting evidence in this respect is to be found in the lower levels at Mersin.¹⁰ Here there is no very noticeable division between the pre-Halaf painted pottery and what follows. Directly beneath the fortified village at Level XVI (13.50 m.), in which Halaf pottery was found, there are 4 meters of settlements characterized by crude-brick walls and rather primitive painted pottery in many ways most surprisingly similar to our Hassuna archaic painted ware. But at 9.50 meters there is a change so complete that it undoubtedly represents an important migration or at least a primary epoch in cultural evolution. For from here down to the base of the sounding all walls are of stone, and not a single sherd of painted pottery was found. Garstang and Burkitt have understandably selected this as the line of demarcation between the neolithic and chalcolithic phases. But, whether or not it can be connected with any terminology at present accepted, it seems to us that this cultural revolution at Mersin may be safely treated as a point of departure in reckoning the significance of related material from elsewhere. In a word, since we are inclined to accept Burkitt's application of the term "neolithic" to the pre-painted pottery era as opposed to the immediately following phase, which he has designated "proto-chalcolithic," and since this Mersin proto-chalcolithic matches in so many respects our Hassuna archaic assemblage, we have equated the 9.50-meter dividing-line at Mersin with Level Ib at Hassuna and applied the term "neolithic" to the dis-

tinctive society of our earliest settlers only.

The archaic painted ware and the neolithic coarse ware from Tell Hassuna have, in fact, many parallels elsewhere, none of which need in any way conflict with such an assessment. Other affinities of the "archaic" painted ware seem to be as follows: in the absence of Braidwood's final publication of the Syrian Expedition materials, he has kindly informed us that in his new terminology "Amuq A" would correspond to Mersin "Neolithic" and "Amuq B" to the proto-chalcolithic at the same site.¹¹ We therefore assume that the painted pottery of the old Judaidah "XIV" period may be equated to our archaic painted ware. At Sakje Geuzi¹² the buff ware with pink slip and red paint sounds unmistakably familiar. At Carchemish,¹³ Lawrence's description of painted pottery found at the 20-meter contour in the "citadel trench" seems to correspond. The painted ware of Jericho IX¹⁴ must be very similar, and the fact that it succeeds the coarse "neolithic" wares is significant. Painted pottery from virgin soil at Megiddo, illustrated by Shipton, who cites parallels from the neolithic levels at Jericho,¹⁵ may tentatively be included, in spite of its occurrence directly beneath middle-chalcolithic material and Shipton's reluctance to date the stratum in which it was found (XX) earlier than early chalcolithic.¹⁶ Finally, a sherd or so of Hassuna

¹¹ See also *JNES*, III (1944), 66, n. 45.

¹² *AAA*, XXIV (1937), 132.

¹³ *Iraq*, I (1934), 158-61.

¹⁴ *AAA*, XXIII (1936), 77-84.

¹⁵ Geoffrey M. Shipton, *Notes on the Megiddo Pottery of Megiddo Strata VI-XX* (SAOC, No. 17 [Chicago, 1939]), § 156.

¹⁶ *Ibid.*, §§ 149 and 159.

⁹ *Op. cit.*, p. 77.

¹⁰ *AAA*, XXVI (1939), 38-72.

archaic painted ware was found in Ninevite I.¹⁷

In almost every case the ware cited represents the earliest attempt to decorate pottery with paint and suggests the beginning of a well-defined epoch. The main technical feature of such ware is the use of mat or lustrous paint on a burnished surface or of heavy lustrous paint on a mat surface. At Hassuna almost always the clay surface is pink and the paint red (see pp. 278-79).

As for the affinities of the neolithic coarse ware from Tell Hassuna, it is remarkable that in every case not only the fabric (see pp. 276-78) but various types of lugs also are paralleled elsewhere. Coarse ware at the bottom of Schaeffer's sounding at Ras Shamra¹⁸ (Ugarit V) shows *mamelon*-lugs near the mouths of vessels, and "ledge handles." In stage 2 of Jericho IX the straw-tempered ware has "knob handles" just below the rims of vessels. Shipton's coarser ware in Megiddo XX has knob-lugs. Lugs of the "nipple" type occur in the neolithic pottery of Mersin also.¹⁹

Plain lightly burnished pottery from Levels Ia-II at Tell Hassuna has obvious parallels elsewhere. It seems, as we have already said (p. 261), to occur in the approaches to the neolithic at almost all the sites mentioned so far.

Certain other burnished wares from the early levels of Tell Hassuna are worth observing, particularly gray and black bowls sometimes with high burnish amounting to polish. We found hardly more than a dozen sherds, and the best examples occurred as late as Level IV or V,²⁰ where

they were contemporary with Samarran ware; yet they cannot by any means be ignored. Both black and gray types, after actual comparison of the sherds, are seen to be identical with such wares from Sakje Geuzi (see p. 278). This means that they may have equally close relations in the deepest levels at Carchemish, Ras Shamra, Judaidah, and Mersin, or even at Tasa in Egypt, although the impressed decoration in evidence at most of these sites is lacking. Nearer home were found two or three similar sherds in Ninevite I, others at Arpachiyah,²¹ below level T.T. 10, and Chagar Bazar,²² on virgin soil; while the dozen fragments of the corresponding "ceramique noir" recorded by Ghirshman²³ in the lowest level at Sialk in central Iran probably constitute our only possible link with the plateau except through the Samarran. Generally these highly burnished wares occur with much greater frequency to the west of Iraq, and, partly owing to their reappearance from that direction in the mid-chalcolithic, that is, "Uruk" period, it has become difficult not to associate them with modern Turkey. Among the early Hassuna settlers they perhaps represent the last remnants of a long tradition elsewhere and, combined with the character of the first painted ware, might be taken to suggest for our first arrivals a northwestern origin.

It is strange how little can be said of the Hassuna standard pottery in its mature form. We have already referred to its three main subdivisions in respect to decoration, all of which had already appeared side by side with the archaic pottery in Level Ic and, by Level III, could

¹⁷ AAA, Vol. XX (1933), Pl. XXXV.

¹⁸ Syria, XVI (1935), 164.

¹⁹ AAA, Vol. XXVI (1939), Pl. XXXII.

²⁰ These sherds compose a considerable part of a shallow bowl and cannot therefore be considered a chance survival. See Pl. XIV, 1, 9.

²¹ Iraq, II (1935), 175.

²² Iraq, Vol. III (1936), Pl. III.

²³ R. Ghirshman, *Fouilles de Sialk*, I (Paris, 1938), 11-16. [It is not clear from the publication that this pottery is burnished.—R. J. B.]

be said to have reached maturity. We know of no parallel for the standard painted ware (which is distinguished from the archaic class by the invariable use of mat paint on an unburnished surface), except in Ninevite I, nor for the combination of mat paint with incising. Point-scratched sherds of Ninevite I type found by Mallowan at Arpachiyah and Chagar Bazar and by McEwan and Braidwood at Judaidah, of course, invite comparison with our Hassuna incised ware. Generally speaking, we can only again stress that the aggregate of these styles constitutes a strongly individual ceramic industry, obviously vernacular in character and not demonstrably related to any known contemporary culture. Its occurrence among surface finds elsewhere will no doubt be detected from now onward with greater frequency owing to our knowledge of its significance, and it is to be hoped that in this way some idea will eventually be gained of the extent of its distribution.

The clear distinction which we were satisfactorily able to substantiate between the indigenous painted wares and the contemporary Samarran pottery has already been referred to (p. 261) and will be enlarged upon below (pp. 281-83). The influence of one upon the other is, in fact, negligible and calls for no special mention in this context. Since we are therefore able to treat this new Samarran occurrence objectively, it would be only proper for us to examine it in the light of the exhaustive analysis of the Samarran style which appeared in a previous number of this *Journal*.²⁴ Yet there would be little point in here checking the authenticity of our Samarran material against the repertoire of patterns and shapes presented in that analysis, since a single glance at Herz-

feld's original publication of the type-site material is enough to convince one of the identity of our material.²⁵ It is regrettable that Tell Hassuna cannot supply the cultural setting for the Samarran pottery, which, as Braidwood points out, is badly needed, since the setting in which it is here found must rather be identified with the indigenous society. The circumstances of the occurrence are simple. It arrives with the style already fully developed in Levels III-IV. A great many vessels show signs of riveting or mending with bitumen, which suggests that a certain value was placed upon them. This pottery reaches its maximum frequency in Level V and disappears in Level IX, after surviving well into the Halaf period. At the time of writing, unfortunately, no copy is available here of McCown's article²⁶ in which the Iranian origin of the Samarran style is discussed. It seems unlikely that the new occurrence will add to or detract from his argument, since geographically Hassuna is about halfway between Samarra itself and Baghouz²⁷ and since it has contributed no evidence of a formative period in the evolution of the Samarran style. In fact, if we assume that no further confirmation was necessary of the position of Samarran pottery in the prehistoric sequence, then the anthropomorphic jar neck found in Sounding 2 (Pl. XVII, 2) is almost the only contribution which Tell Hassuna has made to our knowledge of the Samarran pottery style.

²⁵ We do, however, indorse the criticism which these authors have leveled against the loose application of the term "Samarra" and commend their effort to prevent its perpetration.

²⁶ D. E. McCown, *The Comparative Stratigraphy of Early Iran* (SAOC, No. 23 [Chicago, 1942]); *JNES*, I (1942), 424-49. Cf. also p. 256, n. 8, above.

²⁷ *JNES*, III, 47 ff. It may be mentioned here that surface material which would probably be considered true Samarran pottery has been brought to us from sites as far east of the Tigris as Kifri.

²⁴ Braidwood *et al.*, *JNES*, Vol. III, No. 1.

III. THE EXCAVATIONS

FUAD SAFAR

GENERAL OBSERVATIONS

During the entire period of the indigenous culture (Levels Ib-VI) at Hassuna the only building material is adobe. The walls, however, improve considerably in symmetry and regularity in each successive reoccupation. By Level IV the grouping of rooms and sometimes even their special functions are easily comprehensible. The section of the village excavated at this level (Fig. 31 and Pl. VIII, 1) can in fact be taken as characteristic and is extremely interesting (see p. 274).

Bread ovens, hearths, and fixed stone mortars are features which give character to the various rooms and courtyards. Ovens appear as early as Level Ib (see Pl. I, 2, beside standing figure), at which stage they consist of a simple clay barrel tipped toward the ground at an angle of about 30°. By Level II they have become more spherical and roomy, but the fallen fragments in one example (Pl. II, 2; see also p. 273) indicated that there was still a single opening through which the fire was laid and kindled, the ashes raked out, and the bread inserted. The presence of two or three "sling-pellets" among the ashes made one wonder if they had been used as pot-boilers. A rough clay "stopper" lying on the top of the oven suggests some sort of venthole for creating a draft.

There is little more to be said about the village architecture of Tell Hassuna. Peculiarities of building at various levels and details of adobe composition, pavings, etc., are discussed under their respective occupations.

Apart from infant burials, no well-preserved skeletal remains were found during our first season (1943), but in 1944 this important deficiency was made good. Beneath the floor of Room 6 in Level Ic was

an undisturbed burial which we were able to remove *in toto* and have now displayed in the Iraq Museum (see Pls. II, 3, and III, 2). The body was lying in a fully contracted position with the head toward the north, and there were no traces of any tomb furniture. Some measurements show the height of the individual to have been from 4 feet 2 to 4 feet 6 inches, but it has not yet been possible to determine whether or not it was an adult. Three sides of the grave were formed by the foundations of the walls of the room, while the fourth was supplied by a row of large stones (see Fig. 28). The upper jaw and part of the cranium, which had completely decayed, have been restored for exhibition purposes (see Pl. III, 2).

An adult skeleton found in the first camp site (Level Ia) was slightly disarranged (see Pl. III, 1). It is by no means certain that this was a deliberate burial, and an alternative possibility is mentioned elsewhere (see p. 271). If, however, it was a deliberate burial, a large storage jar near the head and a stone hoe which also lay among the bones could be considered tomb furniture. The orientation and perhaps the position corresponded to those of the undisturbed burial mentioned above.

Two more adult skeletons apparently were flung unceremonially into a grain bin of Level III, one with the skull missing (see p. 273), while a solitary, crushed skull was found in a rubbish pit in Level IV. The only other human bones were found in two small groups in opposite corners of Room 4 of Level IV (see p. 274). There was no head, and it seemed unlikely that they signified a "sectional burial."

We found altogether a dozen infant burials in pottery jars from Level Ib upward. Coarse ware, incised, and painted-

and-incised jars were used. Plate XIII, 2, shows a painted-and-incised jar used for this purpose and beneath it a local imitation of Samarran painted bowls which accompanied the body. Sometimes a small plain drinking cup was placed beside the bones. Perhaps the most interesting of all was the burial of two infants in the same tall-sided incised bowl in Level II (Pl. III, 3; see also p. 273). The head measurements are consistent with those of newborn children after a normal period of gestation, and we at first assumed them to have been stillborn twins. Later, however, the development of the teeth suggested that they had lived some months after birth. This burial also is now preserved in the Iraq Museum.

More than thirty circular grain bins were encountered during the work in the main sounding (No. 1). None was found in Sounding 2, a fact which suggested that they were peculiar to the indigenous culture. With a single exception they were constructed of 6-cm. walls of fine unbaked clay tempered with straw. Outside they were heavily coated with bitumen, obviously deriving from the mineral source a few miles away at Hammam Alil on the Tigris. In some cases they were lined with whitish gypsum. In the earlier levels (Ib-III) their shape approximated that of the coarse-ware jars of Level Ia (see pp. 276-78), from which they probably originated. The basin-like lower portion has a double-ogee curve to a small flat bottom (Pl. IV, 1-2), and the walls of the upper structure curve inward to a narrow hole-mouth (Pl. II, 1). The earliest example found appears at the left in Plate VI, 2. It belongs to Level Ib and is made entirely of gypsum. In the later levels the original shape was almost forgotten; carination had disappeared, and the bottom was roughly rounded.

The grain bins averaged about a meter

in diameter, though they occurred as large as 1.50 m. and as small as 60 cm. It was easy to deduce that they had invariably been constructed on the surface and then lowered into position underground with their mouths just above the pavement, since there was always loose filling (10-20 cm. thick) between their sides and the stratified debris around them. Hence they could not have been coated with bitumen *in situ*. Inside, decayed chaff and carbonized grain beneath a deposit of fine clay from seepage water often testified to the purpose for which they were used. Broken bowls obviously used as dippers sometimes provided further evidence. It was natural to find that the bins had had an alternative function as repositories for rubbish. Large quantities of animal bones were not uncommon, and a bin of Level III contained two incomplete human skeletons.

One need not look far to find similar devices for storing grain. Circular "silos" occurred in contemporary levels at Mersin,²⁸ and underground storage is the regular practice in the modern village of Mersin.

The majority of bone implements found in association with the indigenous Hassuna pottery were points and spatulas (see Pl. X, 2). The former differed in no way from the normal bone awl found in most early periods all over the Middle East, being sharpened and polished at the end only.²⁹ Two examples, however, at the extreme right and left of the central group in Plate X, 2, were sharpened at the sides also. There is little doubt that their main function was piercing skins, though some similar tool must have been used by the Hassuna potter in decorating his incised ware. Spatulas were often pierced at

²⁸ A.A.A., Vol. XXVI (1939), Pl. XLI.

²⁹ No traces were found of pierced points such as occur in the early levels at Mersin (*ibid.*, Pl. XXXIV, 35, 36).

one end, apparently for suspension. The example at the extreme left in the bottom row has a tang showing traces of bitumen which probably attached it to a handle. A single point in the central group has similar traces of bitumen, but heavy bitumen "grips" such as were common in the Ubaid period are missing. The two chisels in the central group belong to the Halaf period. The shinbone above the central group has one cutting-edge.

Since in our department there are no experts with sufficient experience to comment authoritatively on the fairly large quantity of stone objects, flint, and obsidian found in the lower levels at Hassuna, we have presented drawings and notes on the most representative examples.³⁰ By far the larger number came from what we have assumed to be neolithic camp sites in Level Ia. These included the better-made stone hoes with a heavy coating of bitumen for attachment, many of the largest polished celts, and, among the obsidian, a magnificent javelin head (Fig. 22:9) comparable with those found in the neolithic levels at Mersin. With the first adobe walls sickle blades begin to appear in large numbers. Traces of the sickle-blade industry itself were found in an impressive domestic group in Room 17 of Level II (see Fig. 29), where some of the blades lay among the flint nodules from which they had been flaked. In the same find-spot occurred a large section of a complete sickle with the flakes still set in the original bitumen. They were not serrated but set overlapping, and upon the bitumen were traces of the wooden backing which gave strength to the implement. An even better-preserved example, found

in Level III (see p. 274), appears in Figure 37, where we have attempted a reconstruction.³¹ The curve of the "blade" is determinable, but the method of attachment and the angle of the handle are pure speculation based on Egyptian hieroglyphic and other representations.

Plate XI, 1-2, shows a selection of beads, pendants, and other small ornaments or amulets from the Hassuna levels. Beads are of simple shapes, and by far the most delicately carved and polished appears in the center of Plate XI, 2. Turquoise is perhaps the most interesting imported material, as it is rare in early periods in Iraq.

Spindle whorls occur at all levels. They are of the usual double-cone shape, made commonly of baked clay, sometimes ornamented with paint, and less often of stone. They differ not at all from those which characterize the chalcolithic and proto-chalcolithic cultures throughout the Middle East. Symbolic clay figurines of the "mother-goddess" type take forms which reappear in the post-Hassuna levels. Compare, for instance, our examples in the second row of Plate XI, 1, and those of the Halaf period found at Arpachiyah.³²

bell Thompson, *The British Museum Excavations at Abu Shahrain in Mesopotamia in 1918*, Pl. VII:B; or the Uqair examples, *JNES*, Vol. II [1943], Pl. XXIX, lower left). Chipped hoes also appear in Sialk I and II. The only one illustrated (see Ghirshman, *op. cit.*, Pl. LVI:3) is triangular in shape and fairly similar to the Hassuna example, Fig. 25:2, but has a more pointed butt and straight sides. The Sialk celts were also flaked but may be polished in addition.

The Hassuna sickle blades (if the examples drawn, Fig. 23:2, 10; Fig. 24:1, 9; probably Fig. 26:15, are representative) are made on irregularly shaped blade segments or on flakes. In this, they differ from the sickle blades of other available early village assemblages (e.g., Judaidah, Mersin, Sialk), which have neat sickle blades made on small narrow blade sections.—Linda S. Braidwood.]

³⁰ [It is interesting that different techniques prevail for the celts and hoes. These same techniques carry on into much later periods in Mesopotamia. The celts are polished (after chipping? and/or grinding?), especially along the working-edge; the hoes are only chipped. The hoes (cf. esp. Fig. 20:1) would seem to be ancestral to the Ubaid chipped hoes (see R. Camp-

³¹ This sickle as well as all the stone, flint, and obsidian finds were drawn by Mrs. Seton Lloyd. [In subsequent correspondence, Mr. Lloyd called attention to the Natufian straight form of hafting (cf. Iliffe, *op. cit.*, Pl. III). The straight haft is also present at Sialk (cf. Ghirshman, *op. cit.*, Pl. VIII:2).—R. J. B.]

³² *Iraq*, Vol. II, Figs. 45, 46, and 47.

Our largest figurine (Pl. XVIII, 2), however, is in many ways unique. It was unfortunately poorly preserved because it had not been baked, but the "mother-goddess" form is easily recognizable. There is an unexplained excrescence on the left thigh, and one of the truncated arms is missing owing to a blow from a pick. The head or headdress was found in five fragments. Two of the fragments are suggestive of curved horns, each showing the impression of a reed which ran through the center to strengthen it. They are of greenish clay, contrasting with the reddish clay of the body.

At the top of Plate XI, 1, are three sherds of a very unusual painted bowl. It was decorated with heavy thick paint in two colors—chocolate and pale pink—on a mat cream slip.

DETAILED DESCRIPTION^{32a}

A. THE CONTOUR MAP (FIG. 35)

A survey of Tell Hassuna showed that the site is surrounded on three sides by shallow wadies which combine in the area mapped to form a single stream, meandering eastward to join the larger Wadi Qasab. Only the mound itself and the plowland directly adjoining its base showed any notable signs of surface pottery. For the contours a datum point was selected in the stone bed of the wadi exactly north of the center of the main sounding (No. 1). The highest contour in the plan is 6 meters above this and encircles the flat top of the mound. This part had never been cultivated, owing to numbers of large projecting stones, deriving mostly from the Assyrian occupation. The two soundings made in 1943 are marked in solid black, while the hatched areas represent the extensions of both made in 1944.

^{32a} Sections A, B, and C of this heading were written in collaboration with Mohammed Ali Mustafa.

B. THE SECTIONS (FIGS. 33-34)

Section *CD* represents the entire excavated area. A great deal of information about the sequence of occupations may be gained from it. Levels Ia-VI represent pre-Halaf occupation of the site, and the pavement line of Level VI indicates the shape of the mound at the time when the indigenous Hassuna culture began to be displaced by that of the Halaf people. As has already been mentioned, it shows that the center of the mound and therefore of the village was originally almost in the center of Sounding 1, but that the new arrivals spread westward, away from the confluence of the wadies, building a new village partly on the western slope of the existing mound and partly on the presumably flat ground beyond. Such a phenomenon is extremely common in Iraq today, where hundreds of modern villages are built on the flanks of ancient mounds. At Tell Hassuna the later occupations were of sufficient duration to create a new mound whose center was some 40 meters to the west. In Sounding 2, Level VI (which occurs at the surface in the center of Sounding 1) is buried beneath the remains of at least eight distinct later occupations (Levels VII-XIV in section *CD*). Beginning at the surface their pavements slope sharply westward with the curve of the earlier mound (Pl. I, 3) and then flatten out, until that of Level IV is practically horizontal. A fifteenth occupation level is represented by a stone pavement just beneath the surface at the summit of the modern mound. If we judge by the pottery, etc., this is almost certainly Assyrian. One end of the Sounding 2 trench can be seen in section *AB* (Fig. 34), a cross-section of Sounding 1. Here the northward slope of some of the pre-Halaf pavements suggests that on this axis the section excavated was not quite in the center of the earliest settlement, which

probably lay equidistant between the two wadies. An area in the center was left unexcavated below Level II owing to an acute shortage of labor at the end of our season.

C. ARCHITECTURE

SOUNDING 1

A detailed account of the architectural remains at Hassuna must begin with Level Ia, where, paradoxically, there were no traces found of any buildings at all. As already mentioned (p. 262), the only traces of the earliest settlers were pottery, implements, and other personal belongings grouped around the ashes of their campfires. The ground in the neighborhood of this domestic assemblage was most minutely examined for evidence of any type of shelter, and, though traces of woven reed matting were found in several places (Fig. 38), there were no post-holes to suggest huts. It has therefore been possible only to suppose that tents were used, perhaps similar to the modern Bedouin *beit esh sha'ar*, or some even more primitive type of weather screen which left absolutely no trace.

In any case, their manner of living persisted over a fairly long period, for, in the comparatively small area where the excavations were carried down to virgin soil, we were able to distinguish three distinct occupational sublevels actually consisting of the residue from three superimposed "camp sites" (see Fig. 27).

The first-comers pitched their camp on the clean water-borne clay of the wadi. The most prominent accumulation unit centered around an oval hearth (Fig. 27:14) in which wood ashes still lay upon a foundation of sherds and pebbles set in a kind of primitive cement (see Pl. V, 1). A second, smaller hearth (No. 16) was perhaps used for some special sort of cooking. Between the two and beside a large

pottery vessel lay a human skeleton with the bones only slightly disarranged (Fig. 27:17 and Pl. III, 1). In spite of the proximity of the jar and two flint hoes (No. 15) which lay near the head, there were reasons for uncertainty as to whether or not this was actually a deliberate burial. Its orientation, like that of the burial in Level Ic, was to the north, and the position might originally have been a loosely contracted one; but its location near the hearths, on the original soil among a litter of domestic objects, does not preclude the possibility that this individual had died unattended after the camp had been temporarily abandoned. There were half-a-dozen more pottery jars in the vicinity of the hearths, of various sizes but generally conforming to the shapes common among our neolithic coarse ware (see pp. 276-78). A miscellany of other objects included clay "sling-pellets" (No. 19), "poker-stones," and small boulders (Nos. 20-21), most likely used for pounding. Isolated jars were probably connected with accumulation units whose hearths were not located. In square D4 there was an irregular hollow in the original ground surface which can be seen in section AB (Fig. 34).

By the time the second camp (Pl. V, 2) was established, the remains of the first were covered by about 30 cm. of debris. It seems likely that it is represented by a single accumulation unit. The most interesting group occurred some distance from the hearth (Fig. 27:5), which was a slightly sunken oval, roughly paved and filled with wood ash. A large broken coarseware jar (No. 7) was full of charcoal. Its fresh condition and the well-preserved organic form of the wood suggested prepared fuel rather than carbonization by age. A more complete but smaller jar (No. 10) was completely filled with the bones of toads (see p. 284). We were inclined to think that they had perhaps been used for

food, until a similar jar, left exposed during the night, was found in the morning to be full of small green toads rapidly dying in the sun. Other objects include the jawbone and horn of a goat (Nos. 12-13), flint hoes (Nos. 9 and 11), a polished celt in greenish stone (No. 6), and a neat pile of "sling-pellets" (No. 8). All these are illustrated elsewhere. The shape of a large jar found in square *E2* (Fig. 6:13) is appropriate to Level Ib and was perhaps intrusive from above.

The third camp establishment (Pl. VI 1), 30 cm. above the second, also seems to be represented by a single accumulation unit, though the hearth must have been located beyond the limits of the excavation. Associated with it was an infant burial (Fig. 27:1) in a coarse-ware jar (Fig. 6:12); a second jar, probably for water or food, stood beside it—a practice followed in later levels also.

Apart from the usual "poker-stones" and "pounders," there are a bone awl (Fig. 27:2), a polished celt (No. 3), a flat curved stone with traces of grinding on the concave face (No. 4), and a large stone roughly hollowed to serve as a mortar (No. 5).

The notable change in culture above Level Ia has been mentioned elsewhere (p. 262). One important characteristic of the new culture is the use of buildings with adobe walls. The earliest of these is a single room (Fig. 28:1) in Level Ib which was rebuilt with additions in Level Ic. It was poorly built, and its main significance is that it represents the earliest construction yet found in Iraq.

In Level Ic (Fig. 28) a greater number of similar walls and fragments of walls came to light. They varied in thickness from 20 to 45 cm. and were either straight with squared corners or roughly curved. They appeared to constitute at least three houses or units. In one the rooms were

grouped around a recognizable courtyard (No. 16), and some had obvious junctions. Room 25 contained a primitive bread oven and a number of storage jars, mostly of standard incised ware, for food or drink. Room 20 contained another such jar and a stone mortar, but otherwise might have been the principal dwelling-room of the group. Room 12 and the fragmentary walls adjoining it were probably out-buildings. Room 14 was a small detached bake-house, and in the courtyard near by were the mouths of two circular grain bins. Rooms 20 and 23 were damaged by intrusive storage jars sunk in the ground from above.

The single room of Level Ib was rebuilt and incorporated in a building consisting of at least three rooms. At the west end of Room 6, about 40 cm. beneath the floor, was a complete human skeleton (Pls. II, 3, III, 2) in a grave inclosed on one side by large stones. The body lay in a contracted position facing almost due east and was unaccompanied by any kind of provision for the afterlife. Being better preserved than that in the first camp site of Level Ia, it was removed complete and is now exhibited in the Iraq Museum.

The third building unit in Level Ic (No. 11) was unique in Hassuna architecture in that it was circular. The compartments into which it was divided, however, with their pottery, bread ovens, and heavy deposit of wood ash, give it an unmistakably domestic character (see Pl. VII, 2). The principle of construction must have been a sound one, since it survived into the period represented by Level II.

Throughout these buildings the floors were of tamped earth and ashes, unevenly laid as is usually the case with a previously occupied site. It will, in fact, be seen that, as the mound rose in height, the floors of the houses developed a distinct slope which proved convenient for throw-

ing off rain water. There was seldom any difficulty in tracing the floors, owing to the accumulating layers of ash. The walls were built of lumps of mud of various sizes in a manner approximating the local modern practice. Smaller lumps were used to fill the gaps, and the faces were smoothed. In tracing them, it was hard to articulate the individual lumps for three reasons: (1) the clay was tempered with fine straw or pounded scrub, but the lumps were not dusted with the same material as is the usual practice today; (2) the clay contained gypsum ingredients which tended to cement the lumps together; and (3) the lumps were evidently not allowed any time to dry before being used.

The walls of Level II (Fig. 29) were of finer clay and stood to a greater height (in some cases 1 m.) than those beneath. There was a slight improvement in building technique (see Pl. VII, 2). Greater lengths of walling appear, although the planning was not always clear. There were apparently two main groups of rooms. Rooms 1-4 and 7 with courtyard (No. 12) form a possible dwelling unit. Room 1, with a well-preserved bread oven in one corner (Pl. II, 2; see also p. 267), was clearly of domestic character. In and about the oven were variously shaped "poker-stones." A baked clay "stopper" found on top was perhaps to cover a vent or inspection hole. A couple of "sling-pellets" had fallen or been placed in the fire and were baked hard. No trace of a door was found in Room 4—a phenomenon which occurred often in later levels and which led us to assume that such rooms were merely stores accessible through hatches high up in the walls. Part of the house was demolished by grain bins intrusive from a higher level.

The second group of rooms is in no way self-explanatory but probably also con-

stituted a dwelling. By far the most prolific area was No. 17 (Pl. IX, 3), which, although it seemed to have no relation to the section of wall at its west, produced an astonishingly large accumulation of domestic objects. They included at least six complete incised jars and fragments of others; two large coarse-ware jars, one with saucer-shaped cover (cf. Fig. 6:13); a large group of flint nodules with a dozen worked flints and chips; several flint blades set in bitumen, and an almost complete sickle (cf. Fig. 37); at least five bone awls (cf. Pl. X, 2); a pounding-stone, two spherical polished stone balls (cf. Pl. X, 1), and miscellaneous stones; the horn of a sheep or goat and bones of small animals; numerous "sling-pellets"; lumps of ocherous paint and other minerals; and knuckle bones. In the northwestern corner of the excavated area we found an infant burial (Pl. III, 3) in a tall-sided standard incised jar accompanied by two vessels for food or water. The bones appeared to be those of twins (see p. 268), and among them was a tiny pottery cup for drinking. East of this burial were the remains of the circular building founded in Level Ic.

The walls of Level III (Fig. 30) showed an intelligible plan. A large house with rooms grouped around a courtyard (No. 21) was separated by a narrow passage (No. 18) from another house. No individual room had particular character except No. 10, in which the mouths of two sunken grain bins showed in the floor and a large coarse-ware receptacle lay beside them. One of these bins contained two human skeletons (one with the head missing) whose disposition suggested that they had been thrown into the bin without ceremony. The position of a beam which had spanned the room in the center was marked by a semicircular projection in each long wall. Room 14 contained a large coarse-ware milk jar with knob

handles (see Pl. XII, 2), and Room 16 yielded two complete incised jars. Passage 8 ended in a doorway with a stone-paved threshold, and adjoining the southern jamb was a pivot stone for the door—the earliest yet found in Iraq. Outside this doorway two unbroken standard painted jars (Fig. 2:5-6) were found in what might have been a deposit of rubbish intruding from the level above. In the northwest corner of the sounding we found a clay platform with a grain bin on one side and a square recess on the other. Lying upon it was an almost complete sickle (see p. 269) composed of flint blades set in bitumen, with traces of the wooden backing which presumably was attached to a handle (Fig. 37). A 30-cm. deposit of trodden earth and ashes in the houses of this level suggested a prolonged period of security.

Easily the best-preserved groups of buildings found during our excavations were in Level IV (Fig. 31 and Pl. VIII, 1). They afford a satisfyingly detailed picture of the prehistoric village and the character of its houses. We clearly had parts of two houses, and their similarity in plan to houses occupied by Arab fellahin in the modern village of Hassuna eventually led us to attempt an imaginary reconstruction, which may be seen in Figure 36, along with a sketch of the ruins made during their excavation. The more complete house comprises about eight rooms grouped around Courtyard 13. Five of these (Rooms 3-6 and 15) compose a single almost symmetrical unit which is worth observing carefully. If one assumes that climatic conditions in North Iraq in antiquity were approximately the same as today and that the materials available for roofing have not greatly changed, one is probably safe in imagining that low-pitched roofs of branches and mud such as are today the universal rule in every

village from Sherqat northward and Hassuna eastward have been so for an immensely long time. Furthermore, the unit mentioned above is exactly adapted to this form of roof, since the two pairs of rooms (3 and 4 and 6 and 15) are separated by walls which, if linked by a short beam across Room 5, would support the ridge. It is in this way that we have reconstructed the building, assuming at the same time that the wall between Rooms 1 and 17, on the cross-axis, has the same function. The fact that Rooms 4, 6, and 15 had no visible doorways is puzzling. Here again, however, one may easily suppose that they were stores accessible at a higher level than that to which the walls survived. In the southeast and southwest corners of Room 4 two small cavities cut slightly into the walls were full of human bones (without a head) probably belonging to the same skeleton. Whether these represent a "sectional burial" such as is often found in the Halaf period or whether they represent the uncereemonial disposal of human remains is unknown (see p. 267).

Some of our best examples of both Samarran and indigenous wares were found in Rooms 6 and 15 (Fig. 31:30, 42, etc.). In Room 15 there were also a large pile of sling ammunition and one fine long obsidian blade (Fig. 26:6). Room 5 had a well-made bread oven in one corner. In the doorway to the courtyard was a threshold made of large potsherds. Just outside was an oval hearth and near by in the pavement a channel which carried off rain water through a stone-lined opening in the south wall of Courtyard 7. Among the objects found in Courtyard 13 were a flint hoe (No. 55) and a fine painted bowl (No. 68). In the southeast corner there was a low mud bench against the wall.

The unit composed of Rooms 10 and 11 is particularly interesting. In our reconstruction (Fig. 36) we have left it incom-

plete in order to show the courtyard behind. Room 11 was much damaged by two intrusive grain bins, but its character remained clear. Three pairs of facing buttresses must have served to strengthen the walls and to shorten the span of three beams for a flat or penthouse roof. There was an oven in one corner, a door leading to Courtyard 9, and another to Room 10. Otherwise the only object of interest was a small clay figurine (Fig. 31:32). Room 10 also had an oven as well as several stone mortars and a pestle. Courtyard 9 had a hearth, and the mouth of a grain bin was visible. Courtyard 7 produced some good pottery (Fig. 31:45, 50-51) and other objects. There is little doubt that Rooms 10 and 11 belong to a separate house which includes Courtyards 7 and 9, since rain water from Courtyard 13 drained into No. 7 at a point where, if the whole complex had belonged to a single family, there would have been a doorway.

Rooms south of Court 13 probably belonged to an adjoining house, the courtyard of which (No. 23) was provided with a hearth.

Throughout these buildings the adobe walls were well built and straight; they were about 45 cm. thick and remained standing to a height of about a meter. Rooms 6 and 15 had been destroyed by fire, a fact which possibly accounted for the number of objects preserved beneath the burnt debris of the roof. Here for the first time some attempt had been made to improve the floor surfaces inside the houses. Rooms 1, 3, and 4 and part of Corridor 2 were paved with a mixture of clay and chopped straw, usually about 3 cm. thick. A high percentage of straw was also used to temper the fine clay of which the walls were constructed.

The excavated area of Level V seemed to have been fairly completely built over

(Fig. 32). A long unbroken wall running east and west through the center divided the buildings into two distinct groups of dwellings. In the northern group one house consisted of nine rooms clustered around a central court (No. 16). Rooms 7-9 produced a fine collection of Hassuna standard pottery (Fig. 32:52, 68-71, 73; e.g., Fig. 3:2-3). In the southern unit Room 2, which contained two grain bins, was possibly an open court. Room 1 had another bin and, in addition to a large milk jar with knob handles, produced a striking clay figurine (Pl. XVIII 2; see also p. 270). Rooms 5 and 11-12 in the northern group and 21-24 in the southern group probably belonged to separate houses partially destroyed by denudation of the mound. One intrusive grain bin near the edge of the sounding measured nearly 2 meters in diameter. Here and there the floors were thinly paved with clay and straw.

Almost the only recognizable traces of building in Level VI were the remains of a small kiln (Pl. VIII, 2). Its wall, which remained standing to a height of only a few centimeters, was oval in shape with a door at one end. It was roughly paved with stone.

A well-laid pavement of large flat stones occurred near the surface of the northern end of Sounding 1, and there were remains of a stone building which had stood upon it.

SOUNDING 2

Sounding 2 consists of the pit dug in 1943 in the center of the mound and the trench (see Pl. I, 3, and Fig. 33) cut in 1944 to link the pit to Sounding 1. The levels represented were distinguished mainly by the pottery which they produced (see Pls. XIX-XXI, 1), but some other finds and characteristics may be mentioned.

In Level V there were fairly equal amounts of Samarran and indigenous pottery.³³ Among the Samarran finds was the remarkable painted jar neck with a representation of a human face, partly in relief (Pl. XVII, 2). There were no walls within the area of the sounding.

In Level VI there was an increasing preponderance of Halaf pottery. There were still no walls, and the most conspicuous objects were a very large bone chisel and a knife (Pl. X, 2:19 and 25).

In Level VII three adobe walls crossed the trench. There was also an unexplained round structure of the same material. There was a great quantity of fully developed Halaf pottery, a very little Samarran, and what seemed to be chance survivors only of the indigenous wares.

In Levels VIII-X there was very little change in the pottery. It was practically all Halaf ware with some classical polychrome fragments. We found a complete large jar and a spouted bowl, both of Halaf types, in plain ware. There were walls, still of adobe, in Level X.

In Level XII, soon after the first appearance of Ubaid pottery, were the first walls built of rectangular sun-dried brick. The bricks measured about $30 \times 30 \times 15$ cm. and were made of rather poor clay mixed with sand and ashes.

From Level XIV upward the stratification was unreliable, owing to the proximity of the surface. There were buried stones and the remains of a stone pavement, as well as some pottery belonging to the Assyrian occupation.

There is little to be said of the traces of the final occupation which we found at the summit of the mound, save that at some comparatively late date this little eminence was chosen as a site for a soli-

tary farmhouse or police post. The character of both the stonework and the pottery associated with it suggest that they were Assyrian.

D. POTTERY

In consideration of the great emphasis laid on ceramic results at Tell Hassuna, it seems worth while here to mention the method used in the field to classify and study the great volume of pottery found. As far as possible, every single sherd was washed on the site and marked with its provenience. Each evening the group found during the day was carefully arranged and laid out flat in a sherd yard in the camp, while the more complete pots went to the workbench for provisional mending. It was thus possible to ascertain what pieces were missing and to make a further search among the loose sherds found in the same area. At the end of the season, when our schedule of types was complete, the sherd yard was finally rearranged according to the newly distinguished categories, and the group representing each level was photographed. These photographs (e.g., Pl. IX, 1-2) give one an immediate impression of the proportion in which the various wares occurred. Also, in order to establish this proportion exactly, the sherds were counted. The chart in which the results were tabulated (Fig. 5) constitutes one of the most important results of the excavation, since here at a glance one may see a complete³⁴ classification of all wares found and the chronology of their occurrence.

COARSE WARE

The most important materials included in this category are the coarse straw-tempered vessels of the first, second, and third camp sites in Level Ia. Apart from eight

³³ [Level V, and the ceramic proportions indicated here for Sounding 2, are apparently not included in the chart, Fig. 5.—R. J. B.]

³⁴ [Cf., e.g., p. 261, above ("The undecorated pottery in these levels has little significance"); n. 33, above; Pl. XIV, 1:9 (p. 289)—which all imply that there are items which do not appear in the chart.—R. J. B.]

fragments of small burnished bowls, the pottery used by the earliest settlers was confined to these rather large storage vessels. Furthermore, they occurred in very considerable numbers, as many as twenty-nine having been found in the comparatively small area excavated.

The shapes vary in their proportions though not in their essential character, all being, as it were, variations on a single theme. The basis seems to be a rather flat saucer or bowl upon whose rim was built an upper structure which either curves sharply inward to make a squat hole-mouth vessel (Fig. 6:4, 5, 9, etc.) or rises steeply to make a tall-sided jar (Fig. 6:1, 2, 7, etc.). The lower portion usually has a flat double-ogee curve ending in a small flat base. It seems just conceivable that our shape originated in a clay basin modeled in the ground, upon which an upper structure was built to increase the content.³⁵

The ware itself seems broadly similar to the earliest found at Jericho.³⁶ It is buff in color with blackened core and a generous tempering of straw, which, when left on the surface, has disappeared, leaving impressions in the clay. The surface outside is wet-smoothed, occasionally shows signs of a very slight burnish, and is sometimes mottled with tiny cracks (Pl. XIII, 1). The tall-sided vessels usually have a group of two or more "nipple lugs" on either side just beneath the rim (Fig. 6:1, 7, 15, 17). There are examples also of semicircular or horizontal "knob-ledges" (Fig. 6:16) as in Jericho IX³⁷ and one T-shaped ridge (Fig. 6:20). Finally, there are examples of a dent in the rim for pouring (Fig. 6:18) and of a hole just beneath the rim, perhaps for the same purpose (cf. Fig. 6:22, from Level Ic).

The purposes for which these vessels

were used seem to have been various. The more squat shapes were probably storage jars for meat, etc., but were used for infant burials also (e.g., Fig. 6:12). In one case a tiny drinking cup of the same ware was laid beside the body. The taller vessels, which stood up to 60 cm. high, were more in the character of milk pails or water coolers. One broken example (Fig. 27:7) was full of charcoal. There was some indication that the largest vessels had been used for storing grain. It is perhaps significant that later, when the possibilities of bitumen and gypsum had been realized, underground grain bins much larger in size but of essentially the same shape, with an ogee curve from a small flat base, were constructed (Pl. IV, 1). The vessel appearing in Plate I, 2, had undoubtedly been used by the first arrivals at the site, since it was actually sunk in the original clean soil, possibly for coolness. Beside it stood a simple cup of the same ware probably used as a dipper (Pl. XIII, 1, upper right).

From Level Ib upward straw-tempered vessels appeared with increasing rarity, and a new shape became common. This is a rather large pear-shaped jar with a turned-up neck (cf. Fig. 6:13); one of these (from Level II; see p. 273) had a saucer-shaped lid inverted over the mouth. Beginning in Level II, a new and most interesting coarsely made vessel (Fig. 3:8-10, Pl. XVIII, 1) came into general use. This, for want of a better explanation of its purpose, we have called a "husking-tray." It is a flat-bottomed oval dish, usually about 60 cm. long by 40 cm. wide, with slightly outslipping sides about 15 cm. high. The whole inner surface is corrugated with deep grooves or pitted by jabbing the wet clay with a stick. One example was thinly coated with bitumen outside. Our suggestion that the purpose of these trays was for separating

³⁵ Cf. AAA, XXIII (1936), 71.

³⁶ *Ibid.*, p. 77.

³⁷ *Ibid.*, p. 81.

the grain from its husks is extremely tentative. In the later levels, however, coarse ware was confined mainly to large almost vertical-sided oval vessels with lug handles (Fig. 3:7 and Pl. XII, 2, right), to which we gave the name "milk jars."

BURNISHED WARE

The majority of bowls from the earliest levels (see Fig. 7) are burnished outside. The clay is buff to pink with grit temper or brown with a black core. The burnishing was done with a pebble over a light slip. It is sometimes perceptible from the texture of the surface only and creates little if any gloss. From Level Ic upward the slip is sometimes almost white and the rims are flattened (Fig. 7:21-28) as in archaic painted bowls. A carinated bowl from Level Ia (Fig. 7:1) has traces of a band of red paint at the rim beneath the burnish—the earliest example of painted decoration yet found in Iraq. Burnishing was sometimes applied to quite large flat-bottomed dishes (e.g., Pl. XIV, 1:13, and Fig. 7:29). Two burnished bowls require special mention, although they were found in levels V and IV, respectively. One (Pl. XIV, 1:9) is of finely burnished black ware such as was found in the "Neolithic" levels at Sakje Geuzi³⁸ and other sites. The fine gray clay carries a heavy black slip, and the burnishing amounts to a polish. The other (Pl. XIV, 1:11) has a smeary gray slip and is highly burnished inside and out. It exactly matches sherds from Sakje Geuzi in the Iraq Museum.

A few jar sherds from the lowest levels (Fig. 7:17-20) also show signs of burnishing.

ARCHAIC PAINTED WARE

The earliest painted pottery from Tell Hassuna has such clearly defined characteristics to distinguish it from that of the later levels that we felt justified in calling

it "archaic painted ware." Actually many of the designs persisted in later levels, but the technique is distinctive and easily recognizable, resulting, for instance, in an almost uniform red color for the paint. The clay is pink, buff, or brown and the slip cream or pinkish-cream. All the vessels are handmade. Apart from the almost universal tendency toward red paint on a pinkish ground, the surface finish is the most notable criterion. There are four separate treatments which can be detected by close examination, but they all result in a similar slightly glossy effect. They are (a) lustrous paint on a mat surface (e.g., Fig. 8:1, 4); (b) lustrous paint over a burnished surface (e.g., Fig. 8:5-6); (c) mat paint over a burnished surface (e.g., Fig. 8:10); (d) total burnishing over a mat paint (Fig. 9:10-11). It can thus be readily understood that the archaic painted sherds are easily distinguishable from the standard painted ware, where both paint and surface are always mat.

The shapes may be roughly divided into bowls and jars. The bowls vary from shallow dishes (Fig. 8:1-2, Pl. XIV, 2:8) to deep, almost vertical-sided, cups (Pl. XIV, 2:3). The rims are often flattened on top, sometimes creating a slight ridge around the rim (see Fig. 8). This never occurs in the later standard painted bowls, but occasional mat-surfaced bowls with flattened rims found in the deepest levels may be said to represent a transitional stage (e.g., Fig. 8:17, 22-24). The shallower bowls are sometimes painted inside with a centrifugal design (e.g., Pl. XIV, 2:8). One fragment (Fig. 8:1) has a trace of some sort of leg support. The painted designs are usually restricted to a deep band of ornament beneath the rim which is itself painted. The bands almost always consist of opposed groups of oblique lines forming a sort of overlapping-chevron pattern.

³⁸ A.A.A., Vol. XXIV (1937), Pls. XXIII et seq.

The jars (e.g., Fig. 7:30-31) are almost spherical with fairly tall, almost vertical necks. The necks usually are painted either solid or with reversing triangles of opposed hatching. For the rest the design is restricted to the shoulder and consists of a row of crosshatched triangles or of reversing groups of concentric triangles. Free triangular spaces between the crosshatched triangles are often filled with large "blobs" of paint (Fig. 9:3) as in the standard painted jars.

The similarity of the Hassuna archaic painted ware to the "proto-chalcolithic" pottery from Mersin³⁹ (levels between 13.50 and 9.50 m.) has been mentioned elsewhere (p. 264).

HASSUNA STANDARD WARES

This pottery consists of incised, painted, and painted-and-incised wares (see Fig. 5). In all three the shapes may be divided into jars and bowls.

The incised ware is similar to that which predominated in Level I at Nineveh. Its character hardly ever varies, although there is a wide range of sizes, from storage jars nearly a meter high to tiny carinated bowls. The clay is buff or pinkish, tempered apparently with fine sand and showing occasional large white grits. The vessels are covered outside with a thin cream slip which extends over the mouth. The slip sometimes acquired a localized pink "blush" in baking. The designs were drawn with a fine point, possibly a sharp flint or bone stylus which cut lightly into the clay. The drawing was undoubtedly done while the slip was still wet, for the body was not exposed by the incisions, and hence the liquid slip closed in again after the point had passed. If the slip had been applied after the decoration was cut, the finely incised lines would have become filled and so disappeared. It

is important to note that the decoration is almost invariably linear and that there are no traces of the "slashing" or "jabbing" technique used sometimes in Samaritan pottery. As is the case with all indigenous Hassuna pottery, the vessels are handmade, and there is no indication of the use of any kind of wheel or *tournette*.

Jars (see Pl. XV, 1-2) are almost globular with short, almost vertical, or, more rarely, slightly outturned, necks. Bowls vary from large, tall-sided, rather coarse, vessels of a type sometimes used for infant burials (Pl. III, 3, and Fig. 3:5) to wide, shallow, sometimes carinated, forms. The decoration of the latter always consists of a herringbone pattern which extends downward for some distance from the rim (Fig. 4:7 and Pl. XV, 1, middle).

The standard painted ware (Figs. 11-12 and Pl. XVI, 1),⁴⁰ which developed from the archaic, was still handmade, with a slight improvement in the tempering of the clay, and the vessels were fired at a higher temperature. The clay itself is still buff to pink, and the slip varies from cream to a more rare pinkish or greenish. The paint is rarely red, as it is in the archaic ware, but varies through red-brown, brown, and dark brown to almost black. Bowls have slightly flattened or round bottoms and almost always plain rims (Fig. 11:13 and 15 being exceptions). There are occasional tall-sided forms (Fig. 11:8) such as are more frequent in the painted-and-incised class. Opposed groups of oblique lines as in the archaic painted bowls are still the most common decoration. Numbers of other motives occur, however, sometimes beneath a band of crosshatching at the rim (Fig. 11:3, 10, 23-24). Some ornament often occurs inside the rim also (Fig. 11:3, 4, 9, 12, 17, 18). One fragment (Fig. 11:2), with a

³⁹ A.A.A., Vol. XXVI (1939), Pls. XXVIII-XXXI.

⁴⁰ Cf. Mersin, A.A.A., Vol. XXVI (1939), Pls. XXVII and XXIX with our Fig. 8.

crosshatched triangle in paint which has flaked off at the intersections of the lines, is interesting because it has an exact counterpart in Ninevite I.⁴¹ Three good unbroken examples of bowls can be seen in Plate XVI, 1:8-10.

Standard painted jars (Fig. 12) are squatter and have shorter necks than those of archaic painted ware. The necks are painted solid, with crosshatching, or with groups of opposed oblique lines. On the shoulders rows of crosshatched triangles or chevrons are the rule, again with round "blobs" of paint in the intervening triangular spaces (e.g., Fig. 2:3-5) which, however, are sometimes filled in solid (Fig. 12:12, 15). Two jars (Fig. 2:7, 10) have unusual characteristics which suggest that they are clumsy local imitations of Samarran jars. Two unbroken examples are shown in Plate XVI, 1:2-3.

In some ways the painted-and-incised ware is more distinctively characteristic of the indigenous Hassuna culture than any other, combining as it does the kind of point-scratched ornament first found in Ninevite I⁴² with some of the simpler motives of the Hassuna standard painted ware. It began in level Ib in the form of ordinary incised ware with occasional painted additions. At this stage the slip was occasionally burnished. By Level III it showed a fully developed combination of shapes and designs.

The clay and slip correspond closely to those of the incised ware. Characteristic shapes and patterns appear in Plate XVI, 1-2. The bowls include tall-sided carinated vessels (Pl. XVI, 2:2 and 3) and shallow forms (Figs. 9:27-28; 13:1, 4, 6,

9, 10-14) very similar to bowls of incised ware. They, too, have a band of point-scratched herringbone ornament beneath the rim outside, but painted decoration was added inside the rim. The ornamentation of the tall-sided carinated bowls is somewhat different. Almost invariably there is a crosshatched painted band beneath the rim outside. Below this is an area of point-scratched herringbone (Fig. 13:18-19) or reversing triangles of solid paint and incised hatching (Fig. 13:7, 16, 22, 23) ending with a painted band at the carination. Another motif is alternate bands of incised hatching and reserved lozenges on a painted ground (Fig. 13:17).

The most perfect unbroken example of this class yet found (Pl. XVI, 2:2) is of pinkish clay with a localized pink "blush." The paint is bright red-brown. Beneath the carination are what appear to be two potter's marks.

Painted-and-incised jars do not appear in any quantity until Level IV. One of the earliest examples (Fig. 3:1) is similar in form to the standard painted jars. In later specimens the body varies from squat to egg-shaped and the neck varies in height, usually sloping inward slightly (Pls. XVI, 1:6; XVI, 2:4-5). (The jar shown in Pl. XVI, 2:1, is an exception to this rule and resembles Samarran jars.) As in the painted jars, the necks are often ornamented with painted crosshatching or opposed groups of oblique lines (see Fig. 14), but here these motifs sometimes are varied by the addition of a band of reserved lozenges (Fig. 14:2, 10). The body designs, which seldom reach below the point of maximum diameter, consist of incised herringbone, incised hatched triangles alternating with solid painted triangles, and painted bands. One jar (Fig. 3:2) bears a potter's mark somewhat resembling a *bucranium*(?).

A large complete jar of this class (Pl.

⁴¹ AAA, Vol. XX (1933), Pl. XXXV, 5.

⁴² Of the ten sherds figured by Mallowan as "combined painted and incised wares" in Ninevite I and II (AAA, Vol. XX [1933], Pl. XXXV, No. 21, and Pl. XXXVI, Nos. 15-23) only two (XXXV:21, and XXXVI:15) can be recognized as true Hassuna ware. The remainder are of the Samarran painted and incised class mentioned elsewhere (below, p. 282).

XIII, 2; Fig. 3:4) held an infant burial (see p. 268). The bowl shown beneath it (Pl. XIII, 2), which was found inside the jar with the body, is a crude local imitation of a Samarran shape and motif.

SAMARRAN WARE

We had the good fortune to find a number of almost complete vessels of the striking painted ware first found by Herzfeld at Samarra (see Fig. 1 and Pl. XVII, 1). This ware has been so minutely examined both by Braidwood *et al.* in connection with the Baghouz occurrence⁴³ and by Herzfeld himself that further description is hardly needed, except in relation to characteristics now found for the first time.

At Tell Hassuna there is little remarkable about the actual ware. The clay varies from buff to pinkish or occasionally bright pink and red. It is usually medium-baked with rare instances where firing has been sufficient to turn it greenish. It has a rather thick cream slip with a mat finish. With one exception the decoration is always monochrome, various colors occurring in the following order of popularity—chocolate, red-brown, red, dark brown, brown, and black. The frequent combination of red paint and pink clay suggests that the firing may have affected clay and paint equally. Sherds from a single pot have zigzags of alternating pink and chocolate paint (Pl. XI, 1).

The shapes which occur at Tell Hassuna have been roughly classified, like the local Hassuna wares, as bowls and jars, but among the variations on these two themes most of the types found by Herzfeld are represented. (1) Wide bowls with outturned rims (see Pl. XVII, 1, and Fig. 1:4, 6) are Herzfeld's *Schüsseln*; (2) the bowl shown in Figure 1:3 could be an example of the *Fussschalen*, since the ring

base in the drawing is restored only from the marks of a circular fracture on the base; (3) a carinated bowl (Fig. 1:7) and three ordinary bowls (Fig. 1:5, 9, 10) are examples of the *Näpfe*; (4) deep bowls (Fig. 17:4, 7, 34) are examples of *flache Töpfe*; (5) a wide-mouthed jar (Fig. 16:20) is an example of the *tiefe Töpfe*; (6) a second type of wide-mouthed jar (Fig. 1:1) represents the *Becher*; (7) Figure 18:2 is a *Topf mit kurzem Hals*; (8) Figure 1:8 is a *Flasche mit hohem Hals*. In fact, almost the only relatively unfamiliar Samarran shape found at Tell Hassuna is that of the tall jar neck (Pl. XVII, 2, and Fig. 1:2) ornamented with a human face partly in relief. This fragment is, as far as we know, a unique and informative picture of a human being of this very early period. Particularly remarkable are the vertical lines on cheeks and chin which suggest tattooing and the dab of paint on one side of the nose which perhaps represents a type of nose ornament still worn by women in North Iraq. The line of the eyebrows is emphasized with chocolate paint. The pronounced part in the hair is reminiscent of a much later, protohistoric life-size head of a woman found at Warka in 1939.⁴⁴

In addition to the complete vessels, we found approximately 450 sherds of recognizable Samarran ware, representing about one-tenth of the total volume of pottery. Since in certain levels these were found side by side with the local standard painted and incised wares, it was at first natural to speculate as to whether the one was derived from or at least a local imitation of the other. By the end of our first season the following evidence was already available to suggest a negative answer to both these possibilities: (a) The Hassuna shapes and designs were already in the process of development in Levels Ib-Ic

⁴³ See *JNES*, III, 47-72.

⁴⁴ *Guide to the Iraq Museum Collections*, Pl. XIV.

long before the arrival in Level III of Samarran ware. The latter arrived already fully developed, but, far from superseding the indigenous wares, it remained in a quantitative minority until Level VII, where the indigenous culture had been entirely replaced by Halaf material. (b) Frequent riveting of Samarran pots (e.g., Fig. 1:4 and Pl. XVII, 1:9) suggests that the ware was regarded as a superior commodity which should not be discarded. It is therefore hardly too much to assume that it was brought from a distance rather than locally made.

In order to consolidate this argument, it became necessary early in the second season to range the two wares side by side and study their characteristics. It was then possible to reach the following conclusions:

a) In the Samarran ware the clay is better tempered and fired and the slip is thicker and more carefully applied than in the Hassuna pots.

b) Hassuna shapes show far less variety than Samarran, and each has distinctive characteristics. For instance, almost spherical jar forms with fairly high vertical necks occur in both, but in the Hassuna examples the rim is almost always straight (see Pl. XV, 1-2), whereas in the Samarran it is slightly outturned (Fig. 1:2, 8). Jars with very short necks sloping inward (see Pl. XVI, 1-2) are peculiar to Hassuna.

c) Painted-and-incised decoration in Samarran ware is limited to jars with a band of such ornament on the shoulder. The incisions do not resemble the Hassuna point-scratched ornament but are always in the nature of "jabs" or "slashes" (cf. Fig. 3:6 with Fig. 18:14).

d) The color of the paint in Hassuna wares is rarely red but varies through red-brown, brown, and dark brown to almost black. The rich, almost purplish, choco-

late paint so common in Samarran ware is a rarity. The designs themselves constitute one of the biggest distinctions. Hassuna bowls are almost always decorated with a wide band of some sort of grouped hatching beneath a single narrower band emphasizing the rim. Samarran bowls have several parallel lines at the rim and a great variety of characteristic patterns beneath. Hassuna jars have a simple pattern of crosshatched triangles on the shoulder often with large spots of paint in the spaces between. These are never seen in the Samarran. The most common Hassuna neck decoration is cross-hatching, whereas Samarran jar necks almost always have groups of two or three diagonal lines only. Finally, there is an instantly recognizable difference in the application of the paint. The Samarran designs are admirably regular and tidy. Groups of parallel lines are thick and straight and close together, usually with thinner spaces between them than the thickness of the lines. Bands of cross-hatching seldom overrun the limits of their field. In contrast, the Hassuna painting is careless, with hatched lines not truly parallel, wide spaces between them, and crosshatching untidy (see Fig. 11:5, 6, 10, 16).

As a result of all these differences, there was usually little difficulty in definitely allotting a specimen to one or the other of the two groups. Yet it has to be admitted that there are occasional doubtful examples (e.g., Fig. 1:7) which combine some characteristics of each. These we were inclined to class as local imitations of Samarran ware, since the Samarran potters would be less likely to bother to copy an obviously inferior technique.

It is in consideration of all this evidence that we have assumed the Samarran pottery found at Tell Hassuna to have been not the work of local potters but a com-

modity imported from elsewhere by the indigenous people of Hassuna during the latter half of their sojourn in that village.

HALAF AND UBAID WARES

Except for a few sherds from near the surface in Sounding 1, these wares were found in the later levels of the mound represented in Sounding 2 only. They occurred in sufficient quantity and preponderance to establish incontrovertibly the stratigraphical evidence which we required, yet in themselves they contribute little to our knowledge of the two wares, which have been so exhaustively studied by the excavators of Arpachiyah and Tepe Gawra. We have thought it best to postpone any detailed examination of the eight-hundred-odd sherds found or any search for evidence of the separate phases in the stylistic development of the two wares and of the transition from one to the other already detected elsewhere, particularly because to do so in the absence of a final publication of the conclusions on this subject reached at Tepe Gawra would obviously be presumptuous. We have therefore contented ourselves with publishing characteristic groups of sherds from each level (Pls. XIX, 2—XXI, 1). The chronological evidence provided by the frequency of their occurrence may be seen at a glance in the chart (Fig. 5).

ASSYRIAN POTTERY

The late pottery found in association with the stone pavement and terrace near the surface of the mound has little bearing on the main theme of the Hassuna investigation. Some complete vessels were found, including a long-spouted lamp, and these together with the main sherd shapes were recorded and are to be incorporated at a future date in a more general corpus of Mesopotamian pottery.

SUMMARY

The cultural isolation of material found in Level Ia has already been referred to. The vast majority of the pottery is straw-tempered coarse ware. The only exceptions are, in fact, eight fragments of burnished bowls, one of which has faint traces of a line of paint around the rim (Fig. 7:1). Both burnished bowls and coarse ware, however, continued to be found (the latter in slightly changed shapes) until Level II.⁴⁵

The first acceptable examples of our archaic painted ware occurred in Level Ib, in which there were altogether twelve sherds. They are mostly rather thick, with heavy lustrous paint on a burnished slip; in quality they are most astonishingly like the earliest painted ware at Mersin (see p. 264). The archaic painted ware at Hassuna reached its highest preponderance in Levels Ic and II, diminished in Level III, and disappeared completely in Level IV.

In the meanwhile Hassuna standard incised ware had appeared in large quantities in Level Ib and throughout the next six levels continued to be far the most popular ware in use. Above Level VI, after the arrival of the Halaf ware, it disappeared except for chance survivals.

The standard mat-surfaced Hassuna painted and the more elaborate Hassuna painted-and-incised wares were in Level Ic, already running parallel to the archaic painted ware, though the combination of paint and incisions in the early stages is hesitant and clumsy (Fig. 9:18–28). These two wares reached their peak in Levels IV and V, respectively, and ceased altogether after the arrival of Halaf ware.

The Samarran pottery occurred first in very small quantities in Level III, reached its maximum in Level V, by Level

⁴⁵ Note, however, that the burnished bowl, Pl. XIV, 1:9, and the coarse ware "husking tray," Fig. 3:9, are both from Level V.

VIII was represented by nine sherds only, and subsequently disappeared except for occasional survivals.

Halaf sherds were found in very small numbers near the surface of Sounding 1, in Level VI. In the same level in Sounding 2 they already exceeded the Samarran sherds in numbers. Levels VII and VIII were exceptionally rich in Halaf pottery, which continued almost to the surface. From Level XI upward, characteristic "North Iraq" or "Arpachiyah" Ubaid

were accompanied it in fairly large quantities.

In the chart (Fig. 5) we have been able to inclose in heavy lines the levels in which the various wares can definitely be said to be represented. A single sherd of Halaf ware found about a meter beneath the surface in Level IV was at first disconcerting, but its significance was subsequently partially neutralized by the discovery of a second sherd from the same vessel at a much higher level in Sounding 2.

APPENDIX I

PRELIMINARY REPORT ON ANIMAL BONES⁴⁶ BY THE BIOLOGICAL SECTION OF THE ROYAL IRAQI HOSPITAL

It is possible to say with reasonable certainty that among the remains are those of the following animals:

Toads.—Many fairly well-preserved vertebrae and other bones, the frontal parietals and sacral vertebrae being typical.

Rat or close relative.—Complete left innominate. This should be readily identifiable with modern specimens available for comparison. It should be borne in mind that rats are burrowing animals and that the bone might be of later date than that indicated by stratification.

Hare.—Firm fragment of a femur only.

Sheep and/or goat.—Goat or sheep remains were among the most numerous and, according

to the Veterinary Department, cannot be easily separated. Some of the smaller bones of this type might be gazelle.

Wild pig.—Several good fragments of skulls with teeth.

Ox.—A few teeth.

Ass.—The head of a tibia bone bearing close resemblance to that of a modern donkey. It is highly probable that herds of Mesopotamian wild ass roamed the area in early times.

Other animals may be represented, but it would be necessary to go through the collection with a complete series of modern bones for comparison.

APPENDIX II

REPORT BY THE GOVERNMENT OF IRAQ CHEMICAL LABORATORY

The following are the results of tests on the exhibits obtained by us:

Specimen labeled "Clinker from Hearth in Level III." This specimen consists largely of siliceous material with traces of carbon. A little calcium carbonate is present. No soluble potash salts remain, but this might be expected, as the specimen appears to have been leached with water.

Specimen labeled "Paint(?) from Levels III

and V." The material is largely a natural iron oxide (Fe_2O_3).

Specimen labeled "Paint(?) from Level Ic." The material is largely a natural iron oxide (Fe_2O_3).

Specimen labeled "Red Ocher from Level Ib." This is similar to the two preceding specimens.

Specimen labeled "Metal(?) from Level Ia." This is galena, the black sulphide of lead. It is today used as a substitute for stibnite, black antimony sulphide (kohl), in the pigment used round the eyes. This material is very dense and heavy (s.g. 7) and may have moved downward considerably. A geologist's opinion as to a near source would be interesting.

Specimens labeled "Traces of Metal." In all

⁴⁶ [In Mr. Lloyd's letter of April 10, 1945, we were informed that, while exact proveniences were not kept for the unworked bone, the specimens all come "from true 'Hassuna' occupation" levels. Cf. also the goat horn in the second camp site of Level Ia, p. 272.—R. J. B.]

cases these consist of natural basic carbonate of copper (malachite). We have searched for any trace of free metal therein, but none has been

found. I am of the opinion that this material could not have been derived by corrosion of metal fragments.

APPENDIX III

REPORT ON SPECIMENS SUBMITTED TO THE IRAQ GOVERNMENT GEOLOGIST

Specimen 1.—Level IV. A large yellow sample weighing about 1 kilogram. This is an admixture of limonite (yellow ocher), i.e., $2\text{Fe}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$, and gypsum sand in about equal proportions. Traces of quartz sand are present. A good smooth ocher is obtained by simple washing and decanting.

This sample recalls limonitic sandy alluvium occurring in small patches in the Fatha (Tigris) gorge 110 km. south of Shura. There might be similar deposits in the Qaiyara—Hammam Alil district, but we have no specific record. The Fatha gorge is chiefly remarkable for some seepages of crude oil, bitumen, and sulphurated hydrogen and for impregnation of sulphur in alabaster (gypsum). The sulphur is sometimes associated with limonite.

PAINTS FROM DIFFERENT LEVELS

Specimen 2a.—Green material of crystalline-radiating fibrous structure. This looks like and is malachite (basic copper carbonate, $\text{CuCO}_3 \cdot \text{Cu}(\text{OH})_2$). It is associated with quartz and some limonite.

Traces of copper carbonate are recorded from the Tuz Khurmatu district (no nearer locality is likely) and from Ora. Tuz Khurmatu is 100 km. from Shura.

Specimen 2b.—A small yellow specimen. This is native granular gypsum heavily stained with limonite. It is analogous with Specimen 1 and probably from the same locality.

Specimen 2c.—A small specimen of pale-pink brick color. This gives reactions for hematite (ferric oxide, Fe_2O_3) in high proportion, gypsum in fairly large quantities, and lesser amounts of dolomite ($\text{MgCO}_3 \cdot \text{CaCO}_3$). It is fairly hard, though silica-free, and is amenable to grinding. The pale-pink color is the natural result of dilution of hematite with two white constituents, and this is probably a natural rock fragment.

Dolomite is a common constituent of Kurdish limestones; proportions of this magnesium carbonate constituent are present throughout more than 1,000 feet of limestones and marls near Fatha, and therefore there is nothing improbable

about the derivation of this fragment from the same neighborhood.

There must be possible localities in a belt of country of great length, west of and roughly parallel with the Euphrates, but the distances involved make them less important.

Specimen 2d.—Of the four samples which follow, only this one is now soft enough to allow color to be rubbed off freely on to brick, pottery, or similar hard material. The shape and the smoothed surface of this fragment suggest that it may have been so used. The color is brick-red, and the principal constituent is hematite. Examination with a lens shows it to be a somewhat unhomogeneous mixture of several shades of red, one of them a less common magenta tint (cf. Specimen 2g). Particles of gypsum are numerous, having a dehydrated appearance, and there are traces of carbonized plant remains. This seems to be artist material not perhaps in the untouched state of natural ocher. It may have been exposed to fire accidentally or by design.

Specimens 2e-f.—Two more somewhat brick-like (red) fragments, *f* being darker than *e*. They are hard but could be ground for pigment, such grinding being quite usual. The hardening might be secondary, owing to the setting of gypsum on taking up water after partial dehydration. There are some carbonized plant remains, which may indicate firing.

Since *g* can be matched at Fatha and since there is a family resemblance between *d*, *e*, *f*, and *g*, all may have come from the same place.

Specimen 2g.—This specimen has a somewhat magenta tint. This shade is met in the range of colors in deposits stained with iron oxide but is less common. Traces have been noticed round a spring with sulphurated hydrogen at Fatha.

Specimen 3.—This specimen suggests modification of natural red ocher (hematite) resulting from grinding and probably washing and decanting, the fine material being allowed to settle from suspension. It shows under a lens a very delicate laminated structure.

Conclusions.—Fatha gorge is a likely source of the iron pigments and Tuz Kharmatu of the copper (green). Other known sources for such materials are less likely in view of the much

greater distances. Iron oxides come from north of Rutna, east of Ser Amadia and Jebel Sanam (south of Basra); copper carbonates from Ora in northern Iraq on the Turkish frontier.

DETAILS OF THE FIGURES AND OF THE PLATES

The following lists contain details regarding objects illustrated in the figures and plates. The information given in the captions is not repeated here, and many of the figures and plates are not listed here at all, as they contained no details which could not be included in the captions. As regards the listings of the figures and plates with pottery, the following sequence is followed in the descriptions: body clay color, slip color, paint color, other surface treatment (e.g., burnishing), and level (in Roman).

FIGURES

FIG. 1.—1. Buff, cream, chocolate, IV. 2. Buff, cream, dark purplish and raised ornament, V. 3. Pink, cream, red, V. 4–5. Buff, cream, red-brown; riveted, IV. 6. Buff, cream, chocolate, IV. 7. Buff, greenish, black, VI. 8. Dark, light, black, IV. 9–10. Buff, cream, chocolate, VI.

FIG. 2.—1. Brown, grayish, dark brown, IV. 2. Buff, greenish, black, IV. 3. Pink, cream, red, IV. 4. Buff, light, brown, II. 5. Pinkish, cream, brown, III. 6. Pinkish, cream, red-brown, III. 7. Buff, cream, red-brown, VII. 8. Greenish, cream, black, V. 9. Pinkish, pinkish in—cream out, red-brown, II. 10. Buff, cream, red-brown, VI. 11. Pink, cream, brown fading, VI. 12. Buff, cream, brown, II.

FIG. 3.—1. Buff, cream, dark brown, III. 2. Buff, cream, dark brown, V. 3. Pink, pinkish, red, V. 4. Pink, cream, black, VI. 5. Pink, cream, III. 6. Pink, pinkish, II. 7. Pink, III. 8. Pink, wet-smoothed, III. 9. Pink, wet-smoothed, V. 10. Pink, wet-smoothed, IV.

FIG. 4.—1. Pinkish, cream, II. 2. Pink, cream, Ic. 3. Dark, light, VI. 4. Pink, cream, Ic. 5. Buff, cream, Ic. 6. Pink, cream, Ic. 7. Pinkish, cream, V.

FIG. 6.—1–12. Ia. 13–14. Ib. 15. Pinkish, cream outside, Ia. 16. Buff, Ia. 17. Pink, Ia. 18. Buff, Ia. 19–20. Pink, Ia. 21–23. Ic. 24–36. All coarsely made; pinkish, straw-tempered, occasional large white grits, black cored ware, sometimes with a localized "blush," usually wet-smoothed, Ia. 37–45. All pink or buff, Ia.

FIG. 7.—1. Bowl; well-levigated buff with localized pink "blush," few white grits, overband of red paint at rim (the only trace of painted decoration at this level), wet-smoothed and burnished outside only, Ia. 2–3. Bowls; buff, slightly burnished outside only, discolored, Ia. 4. Bowl; brown, straw-tempered with black core, slightly burnished inside and out, Ia. 5. Ditto, but darkened, perhaps by unintentional burning, Ia. 6. Bowl; brown, black core, slightly burnished inside and out, Ia. 7. Bowl; slightly burnished inside and out, Ia. 8. Bowl; pink, tempered with fine straw, slightly burnished inside and out, Ia. 9–16. Bowls; buff or pink, most have a few large white grits and some are grit-tempered, sometimes with whitish slip outside, almost all lightly burnished outside only, Ic. 17–20. Group of plain jar-rims; pinkish clay with or without whitish slip, one lightly bur-

nished, Ic. 21–28. Jars; similar to Nos. 9–16, Ic. 29. Oval bowl; pinkish, burnished inside and out, II. 30. Jar; pinkish buff, outside glossy red paint, II. 31. Jar; well-levigated pink, slip outside, glossy red paint, burnished, II. 32. Jar; pink, straw-tempered, wet-smoothed, burnished, Ic. 33. Jar; buff, straw-tempered, wet-smoothed, Ic.

FIG. 8.—1. Flat dish; fine buff, cream slip inside only, lustrous red paint inside and out, thin but very unevenly made, broken stump of one small leg. 2. Pinkish, burnished cream slip outside only, inside matt red paint, repaired with bitumen, handmade. 3. Bowl with flattened rim; gray-brown, matt dark paint, burnished inside and out, perhaps unintentionally burnt. 4. Bowl with flattened rim; buff, pinkish slip outside, thick lustrous red paint. 5. Bowl with flattened rim; pinkish, cream, dark red, burnished outside. 6. Ditto with red paint. 7. Flat dish; buff, cream, smudged glossy brown paint. 8. Dish; buff, wet-smoothed, thick glossy red paint inside only, outside burnished. 9. Bowl with flattened rim; dark brown, cream, dark red, burnished. 10. Bowl with flattened rim; pinkish, cream, matt chocolate, burnished. 11. Bowl with flattened rim; pink, cream, lustrous red over burnish. 12. Bowl with flattened rim; pink, slip, thick lustrous red. 13. Dish; pink, pinkish, glossy red. 14. Bowl; pink, red. 15–16. Bowls; pinkish, slip, burnished over red. 17. Buff, cream outside, light brown—all matt. 18. Pinkish, cream, red over burnish with both partly worn away, riveted. 19. Pinkish, cream, matt red, outside lightly burnished. 20. Pink, cream, red, all matt. 21. Buff, cream, glossy red, burnished outside. 22–24. Buff, cream outside, light brown, all matt. 25. Buff, slip, glossy red. 26. Grayish-buff, wet-smoothed, matt brown paint over light burnish inside and out. 27–28. Cream, slip, glossy red, lightly burnished outside. 29. Buff with large grits, wet-smoothed, dark red paint, all matt. 30. Cream, slip, glossy red, lightly burnished outside. 31. Buff, cream, red, burnished outside matt. 32. Light buff, slip, glossy red, burnished outside.

FIG. 9.—1–4. Pink, cream, lustrous red, burnished, Ic. 5. Buff, cream, matt brown, burnished, Ic. 6–7. Brown, cream, lustrous red, burnished, Ic. 8. Buff, cream, lustrous red, burnished, Ic. 9. Buff, cream, lustrous dark red, burnished, Ic. 10. Pink, cream outside, burnished over red paint, III. 11. Pinkish, cream outside, burnished over red paint, III. 12. Pink, wet-smoothed, matt, burnished outside, III. 13. Pink, cream outside, burnished over red paint and point-scratched, III. 14. Pinkish, cream outside only, burnished over red paint, III. 15. Pinkish, cream, burnished outside over light red paint, III. 16. Buff, cream, matt red wash, III. 17. Pinkish, cream outside, very pale pink glossy paint, III. 18. Pinkish buff, thick cream, dark red matt, roughly handmade, slightly burnished, Ic. 19. Buff, poorly levigated, red paint, wet-smoothed, Ic. 20. Orange, red paint, wet-smoothed, roughly handmade, flint-scraped inside, Ic. 21. Pink, cream, matt red, burnished, jabbed ornament, handmade, Ic. 22. Buff,

slip, some grits, chocolate paint, handmade—repaired with bitumen, Ic. 23. Brown, light, chocolate, handmade, Ic. 24. Orange, wet-smoothed, red, roughly handmade, Ic. 25. Brown, light, chocolate, handmade, Ic. 26. Buff, cream, red, II. 27. Pinkish, cream, dark brown, II. 28. Buff, cream, chocolate, II.

FIG. 10.—1-2. Clay is well levigated with occasional large white grits, light cream slip inside and out, Ib. 3-7. Nearly all buff or pinkish, whitish slip, ornament scratched through slip, Ic. 8-12. Buff or pinkish, light cream outside only, point-scratching through slip, Ib. 13-18. Nearly all buff or pinkish, whitish slip outside only, point-scratching through slip, Ic. 19. Buff, cream, II. 20. Buff, cream, II.

FIG. 11.—1-2. Pink, cream, chocolate, handmade. 3. Buff, cream, red-brown. 4. Buff, cream, black. 5. Pink, pinkish, red-brown. 6. Buff, cream, red. 7. Buff, cream, chocolate. 8. Dark, light, black. 9. Pinkish, cream, red-brown. 10. Dark, cream, dark brown. 11. Pink, pinkish, red-brown. 12. Buff, greenish, dark brown. 13. Cream, cream, brown. 14. Buff, cream, chocolate. 15-16. Buff, cream, red. 17. Buff, cream, dark brown. 18. Buff, cream, brown. 19. Pinkish, cream, red. 20. Pink, cream, red-brown. 21. Buff, cream, brown. 22. Pinkish, cream, red-brown. 23. Buff, cream, dark brown. 14. Buff, cream, red-brown. 25. Buff, cream, brown.

FIG. 12.—1. Gritty buff, greenish, dark brown. 2. Buff, cream, sienna brown. 3. Pink, cream, dark. 4. Buff, cream, light red. 5. Pinkish, cream, dark brown. 6. Buff, cream, dark. 7. Buff, cream, dark brown. 8. Pinkish, cream, brown. 9. Pinkish, pinkish, red. 10. Dark, light, dark. 11. Pinkish, cream, dark brown. 12. Dark, light, dark. 13. Buff, cream, dark brown. 14. Buff, cream, brown. 15. Pinkish, cream, light brown. 16. Pink, pinkish, dark red. 17. Dark, light, black. 18. Buff, greenish, dark brown. 19. Buff, cream, chocolate. 20. Dark, light, dark brown. 21. Pinkish, cream, red-brown. 22. Buff, greenish, black. 23. Buff, cream, red. 24. Dark, light, brown.

FIG. 13.—1. Buff, cream, brown. 2. Pink, cream. 3-5. Buff, cream, brown. 6. Buff, cream, chocolate. 7. Pinkish, cream, brown. 8. Pink, cream, red. 9. Pinkish, cream, red. 10-11. Buff, cream, red-brown. 12. Pinkish, cream, red. 13. Pinkish, cream, chocolate. 14. Buff, cream, brown. 15. Pinkish, cream, red-brown. 16. Buff, buff, dark brown. 17. Pink, pinkish, chocolate. 18. Pink, cream, red. 19. Buff, cream, brown. 20. Buff, cream, chocolate. 21. Buff, greenish, brown. 22. Pinkish, cream, black. 23. Buff, cream, brown.

FIG. 14.—1. Buff, cream, brown. 2. Dark, cream, black. 3-4. Pinkish, cream, dark brown. 5-7. Buff, cream, dark brown. 8. Pinkish, cream, dark brown. 9. Buff, cream, red-brown. 10. Buff, cream, brown. 11. Buff, cream, black. 12. Pinkish, light, black. 13-14. Pinkish, cream, chocolate. 15. Pinkish, cream, red-brown. 16. Buff, cream, brown. 17. Pinkish, cream, red-brown. 18. Dark, light, dark brown. 19. Pink, cream, brown. 20. Pinkish, cream, red-brown. 21. Pinkish, cream, chocolate. 22-23. Buff, cream, red-brown.

FIG. 15.—1-3. Buff, cream. 4-5. Pink, cream. 6-11. Buff, cream. 12-14. Pinkish, cream. 15. Buff, cream. 16. Pinkish, cream. 17-21. Buff, cream.

FIG. 16.—1. Pinkish, pinkish, red. 2. Buff, cream, chocolate. 3. Buff, cream, red-brown. 4. Buff, cream, chocolate. 5-7. Pinkish, cream, red. 8. Buff, cream, dark. 9. Buff, cream, brown. 10. Buff, cream,

red-brown. 11. Buff, cream, chocolate. 12-13. Buff, cream, dark-brown. 14. Buff, cream, chocolate. 15-16. Buff, cream, red-brown. 17. Buff, cream, brown. 18. Dark, light, dark brown. 19. Pinkish, cream, red. 20. Dark, light, black. 21. Pinkish, pinkish, red-brown. 22. Buff, cream, chocolate. 23. Pinkish, cream, red. 24. Buff, cream, chocolate. 25. Buff, cream, dark. 26. Buff, cream, red. 27. Dark, cream, chocolate. 28. Dark, cream, dark brown. 29. Buff, cream, chocolate.

FIG. 17.—1. Buff, cream, chocolate faded. 2. Buff, cream, red-brown. 3. Buff, cream, chocolate. 4. Greenish, greenish, chocolate. 5-6. Buff, cream, chocolate. 7. Buff, cream, purplish. 8. Buff, cream, brown fading. 9. Buff, cream, chocolate. 10. Buff, cream, brown fading. 11-12. Buff, cream, chocolate. 13. Buff, cream, pink. 14. Pinkish, cream, red-brown. 15. Buff, cream, chocolate. 16. Pink, pinkish, red-brown. 17. Buff, cream, chocolate. 18. Buff, cream, red-brown. 19-20. Buff, cream, chocolate. 21. Buff, cream, black. 22. Buff, cream, chocolate. 23. Greenish, greenish, chocolate. 24. Buff, cream, chocolate. 25. Buff, cream, red. 26. Buff, cream, red-brown. 27. Buff, cream, red. 28-29. Buff, cream, chocolate. 30. Buff, cream, red. 31. Buff, cream, black. 32. Pinkish, cream, chocolate. 33. Buff, cream, red-brown. 34. Buff, cream, chocolate.

FIG. 18.—1. Buff, cream, chocolate. 2. Pinkish, cream, chocolate. 3. Buff, cream, chocolate. 4. Pink, cream, red. 5. Pink, cream, pink. 6. Pink, cream, red. 7. Buff, cream, chocolate. 8. Pink, cream, red. 9. Buff, cream, chocolate. 10. Pinkish, cream, red-brown. 11. Buff, buff, chocolate. 12. Dark, light, chocolate. 13. Buff, cream, red-brown, shoulder incisions. 14. Buff, cream, chocolate, shoulder incisions. 15. Buff, cream, brown, shoulder incisions. 16. Dark, light, dark, shoulder incisions. 17. Buff, cream, red-brown, shoulder incisions. 18. Buff, buff, red-brown, shoulder incisions. 19-20. Pink, cream, red, shoulder incisions. 21. Buff, cream, red-brown, shoulder incisions.

FIG. 21.—Celts, cutting edge smoothed and polished by whetstone. 1. Gray limestone, convex cutting edge, head trimmed, Ia. 2. Bluish quartzite head slightly knapped, Ia. 3. Brownish gray limestone, head slightly knapped, Ia. 4. Green crystalline stone, head slightly knapped, Ia. 5. Dark-brown non-crystalline stone, both sides polished, head smoothed into convex platform, Ib. 6. Grayish-black limestone, plano-convex in section, IV. 7. Bluish-black quartzite, both sides polished, Ib. 8. Dark-gray limestone, both sides polished, Ib. 9. Blue limestone, head flattened, Ic. 10. Greenish noncrystalline stone, both sides polished, IV. 11. Gray limestone, both sides polished, head prepared into convex platform, VI.

FIG. 22.—1. Obsidian blade, trimming at one edge and on end of under face; signs of use at other edge on upper face. 2. Bituminous limestone arrow head, no traces of trimming or sign of use. 3. Arrowhead in chert, secondary trimming only at top end. 4. Arrowhead in red stone, slight trimming on one edge only. 5. Fragment of obsidian blade. 6. Obsidian blade, sign of use on one edge. 7. Obsidian blade, sign of use on both edges. 8. Fragment of obsidian lancehead, secondary trimming on upper face. 9. Tanged lancehead in obsidian, secondary trimming. 10. Tanged lancehead in chocolate chert, secondary trimming on faces and edges; an accidental notch near one end. 11-13. Fragments of obsidian blades with no trimming or sign of use (virgin soil). 14. Fragment of

obsidian blade, patina dark gray, sign of use on both edges.

FIG. 23.—1. Flake in matt chert, secondary trimming at one edge on under face, and at other edge on upper face. 2. Sickle blade in matt brown chert, slightly denticulated, top being cortex with traces of bitumen. 3. Fragment of blade in slightly weathered obsidian, sign of use on both edges. 4. Blade in dark chert, signs of use on one edge. 5. Fragment of blade in obsidian, sign of use on both edges. 6. Fragment of blade in obsidian, trimming along one edge on the upper face and on other edge of under face. 7. Blade in weathered obsidian, tanged at base, broken at other end. 8. Fragment of blade in obsidian, denticulated. 9. Tanged base of blade in obsidian, secondary trimming at edges on under face. 10. Sickle blade in chert, edge denticulated, much gloss from use, traces of bitumen. 11. Fragment of end scraper in obsidian, secondary trimming on both edges and finishing off at the end. 12. Blade in fresh obsidian tanged at base and broken at other end, signs of use on both edges. 13. Arrowhead in brown chert, secondary trimming at one edge on the under face. 14. Blade in obsidian, signs of use on both edges.

FIG. 24.—1. Sickle blade in brown chert, slight denticulation. 2. Blade in obsidian, signs of use on both edges. 3. Blade in obsidian, signs of use on both edges. 4. Obsidian flake, with no signs of use. 5. Blade in obsidian, with no signs of use. 6. Fragment of blade in obsidian, showing trimming at the side of one end, used as nose-end scraper. 7. Blade in obsidian, signs of use at both edges. 8. Peg in black stone, finished off by rubbing with a harder stone. 9. Sickle blade in chert, not denticulated; an accidental notch in the other edge. 10. Arrowhead in chert, showing trimming on one edge on the under face and on the other on the upper face.

FIG. 26.—1. Notched blade in obsidian and signs of use on the other edge. 2. Fragment of blade in obsidian, signs of use at both edges. 3. Fragment of blade in obsidian, slight signs of use. 4. Blade in obsidian, signs of use at both edges. 5. Blade in obsidian. 6. Long blade in obsidian, no signs of use. 7. Triangular peg in black pebble, finished off by rubbing with harder stone. 8. Peg in dark-brown stone, nicely polished by rubbing with harder stone. 9. Fragment of blade in obsidian, tanged at base and broken at other end. 10. Fragment of obsidian blade. 11. Arrow head in greenish-brown stone, point broken, showing trimming at both edges. 12. Laurel leaf arrowhead in black stone, secondary trimming at edge. 13. Peg in black stone, sides and faces polished through rubbing with harder stone. 14. Obsidian flake, signs of use on both edges. 15. Blade in chert, denticulation on both edges, luster on one only. 16. Peg in brown chert, polished with hard stone. 17. Blade in obsidian, signs of use on both edges.

PLATES

PL. IX, 1.—*Above*: proportions of pottery types in Level Ib. *Top row*: 1. Mixed shapes, Hassuna standard incised ware. 2. Mixed jars, Hassuna standard incised ware. 3. Bowls and jars, coarse ware. 4. Bowls, Hassuna archaic plain ware. 5. Bowls, Hassuna archaic burnished ware. *Bottom row*: 1. Rims of jars, Hassuna archaic plain ware. 2. Bowls, Hassuna standard incised ware. 3. Bowls with flat rims, Hassuna archaic burnished ware. 4. Jars and bowls,

Hassuna archaic painted ware. *Below*: sherds and household stone articles of Level Ia. *Left*: potsherds either in coarse ware tempered with straw, or in buff to pinkish ware, burnished outside. *Right*: examples of "digging-stones," "poker-stones" (discolored by fire), rubbers, grinders, pounders, and stone mortars.

PL. IX, 2. Sherd yard of Level IV. *Left* (read downward): 1. Bowls, Hassuna standard painted ware. 2. Jars, Hassuna standard painted ware. 3. Mixed shapes, Hassuna standard painted ware. 4. Bowls, Samarran painted ware. 5. Jars, Samarran painted ware. 6. Bowls, Hassuna standard incised ware. 7. Jars, Hassuna standard incised ware. *Right*: 1. Jars, Hassuna standard painted-and-incised ware. 2. Bowls, Hassuna standard painted-and-incised ware. 3. Mixed shapes, Hassuna standard painted and incised ware. 4. Mixed shapes in Hassuna standard incised ware.

PL. X, 1.—1-12. Spindle whorls in baked clay and limestone, Ia-III. 13. Miniature bowl handmade in pinkish clay cream slip, Ic. 14. "Mother-goddess" figurine in baked clay, IV. 15. Fragment of miniature vessel in pink clay, cream slip, IV. 16. Miniature vessel, pink clay, cream slip, V. 17. Gypsum object, III. 18. Object in black basalt, Ic. 19. Object in black basalt stained all over with red ochre, Ic. 20. "Sling-pellet" in baked clay, II. (Note.—Similar pellets were found in considerable quantities in every level of the main sounding at Hassuna.) 21. Hollow clay object pierced in three places (? whistle), V. 22-23. Two small spheres of marble; smooth surface, II. 24. Cup. 25. Cf. No. 21, larger in size, V.

PL. X, 2.—1-3. Awls sharpened only at the point, Ib. 4-8. Awls, sides slightly smoothed, Ic. 9-11. Awls, sides slightly smoothed, II. 12-16. Awls, mostly short, III. 17-18. Awls, much polished, IV. 19. Knife, one edge slightly sharpened, VI. 20. Fine awl, smoothed all over, III. 21-22. Awls sharpened only at end, Ic. 23. Awl, sharpened point and sides, with bitumen for attachment, Ic. 24. Chisel, high polish, VI. 25. Large chisel, polished edges, VI. 26. Tool, both ends used as scraper, Ic. 27. Short point, sharpened end, and polished sides, Ic. 28. Chisel, highly polished, II. 29. Point, end and sides sharpened, III. 30. Point, end only polished, II. 31. Long awl, sides and end sharpened, Ic. 32. Long awl, sides and end sharpened, II. 33. Long rib-bone, slightly polished, Ic. 34. Spatula, tang with traces of bitumen for attachment, Ic. 35. Spatula, roughly polished, Ic. 36. Spatula, head missing, Ic. 37. Spatula, surfaces finely smoothed, pierced at one end, Ic. 38. Spatula, surfaces smoothed, pierced at one end, II. 39. Spatula, smoothed and polished surface, pierced at one end, IV. 40. Spatula, polished and smoothed surface, head missing, V. 41. Thin spatula, sides and faces polished, V. 42. Thin spatula, pierced at one end, V.

PL. XI, 1.—1-3. Fragments of painted bowl, buff clay, cream slip, decorated with heavy pink and chocolate paint, VI. 4. Miniature bowl, grained alabaster (only stone vessel found in Hassuna levels), II. 5-7. "Mother-goddess" figurines, baked clay, IV. 8. Pendant, pinkish limestone, pierced obliquely, V. 9. Pendant, white limestone, pierced obliquely, V. 10. (a) Shell bead; (b) small turquoise bead; (c) pierced tooth; (d) two pierced shells—all II. 11. Small black stone polisher, III. 12. Flint arrowhead, II. 13. Baked clay spindle-whorl, painted decoration V. 14. Double conoid spindle-whorl, limestone, V. 15. Baked clay spindle-whorl, painted decoration, V.

PL. XI, 2.—1. Discoid, button-shaped amulet in limestone, projecting cap on the back, pierced center, face slightly convex, incised ornament, V. 2. Conical pendant in grayish limestone, pink limestone in the base, pierced obliquely for suspension, IV. 3. Rectangular bead in greenish stone, incised ornament, II. 4–5. Fragments of obsidian pendant, edge polished, twice pierced, Ib and Ic. 6. Ovoid-shaped bead, green stone, finely polished, pierced lengthwise, III. 7. Circular semidiscoid bead, rock crystal, pierced, V. 8. Ovoid, dark-green stone, pierced lengthwise, V. 9. Polished tooth (? amulet), II. 10. Lozengoid bead, black stone, pierced, III. 11. Oval pendant, green stone, pierced, Ic. 12. (a) Shell pendant, striated surface, III; (b) small spherical turquoise bead, III. 13. Drop-shaped pendant, green stone (? malachite), pierced near head, Ic. 14. Irregular drop-shaped pendant, greenish stone, Ic. 15–16. Long shell beads, Ia and II. 17. Five beads; four bone, one stone, III. 18. Violet-colored translucent bead (? amethyst), Ic. 19. Bead, reddish stone, Ic. 20. Bead with blue-green surface, pierced, Ic. 21–22. Beads, limestone, Levels III and II. 23. Bead, diorite, pierced in center, edges chipped, V. 24. Bead, limestone, Ia. 25. Bead, diorite, pierced, V. 26. Four small beads, turquoise, Ib.

PL. XIV, 1.—1. Small jar, plain buff, wet-smoothed, Ic. 2. Narrow-mouthed jar, pinkish coarse ware, Ic. 3. Small cup, plain buff, cream, II. 4. Large bowl, plain pink, heavy pinkish, V. 5. Small cup, plain pinkish, cream, II. 6. Simple jar, plain buff, cream, II. 7. Small cup, straw-tempered buff, light, black paint on rim, Ic. 8. Plain bowl, almost white clay with its own slip, slightly burnished outside, II. 9. Flat bowl, gray, black slip, polished outside, V. 10. Deep bowl, straw-tempered buff, greenish, slightly burnished outside, single line of green paint at rim, Ic. 11. Deep bowl, pinkish, gray, burnished inside and out, IV. 12. Deep bowl, pink, pinkish,

lightly burnished outside, III. 13. Oval bowl, buff, wet-smoothed, burnished outside, Ic. 14. Roughly made bowl, normal coarse ware, Ib. 15. Large oval bowl, coarse ware, Ic.

PL. XIV, 2.—1. Bowl, pinkish, cream, red, burnished over all outside. 2. Jar, buff, cream, matt red over burnished surface. 3. Deep bowl, pinkish, cream, glossy red on matt surface. 4. Deep bowl, buff clay, cream slip, matt purplish-red over burnished surface. 5. See Fig. 7, No. 30. 6. See Fig. 7, No. 31. 7. Buff, cream, red, burnished over all, II. 8. See Fig. 2, No. 9.

PL. XV, 2.—1. See Fig. 3, No. 6. 2. See Fig. 4, No. 1. 3. See Fig. 4, No. 4. 4. See Fig. 4, No. 2. 5. See Fig. 4, No. 6. 6. Jar, pinkish, pinkish, V.

PL. XVI, 1.—1. See Fig. 4, No. 7. 2. See Fig. 2, No. 5. 3. See Fig. 2, No. 6. 4. Carinated bowl, IV. 5. Bowl, light, slightly greenish, matt green over very slight burnish, IV. 6. See Fig. 3, No. 1. 7. Bowl, pink, pinkish, red, riveted, V. 8. Imitation Samarran painted bowl, greenish, greenish, almost black, VI. 9. See Fig. 2, No. 11. 10. See Fig. 2, No. 12.

PL. XVI, 2.—1. See Fig. 3, No. 2. 2. Tall-sided carinated bowl, buff, cream, red, V. 3. See Fig. 3, No. 3, V. 4. Short-necked jar, buff, cream, light chocolate, IV. 5. See Fig. 3, No. 1.

PL. XVII, 1.—1. Bowl, buff, cream, dark red, V. 2. See Fig. 1, No. 8. 3. See Fig. 1, No. 3. 4. See Fig. 1, No. 2. 5. See Fig. 1, No. 10. 6. See Fig. 1, No. 7. 7. See Fig. 1, No. 9. 8. See Fig. 1, No. 5. 9. See Fig. 1, No. 4. 10. See Fig. 1, No. 1. 11. See Fig. 1, No. 6. 12. Bowl, imitation Samarran ware, buff, cream, chocolate, V. 13. Bowl fragment, buff, cream, dark red, IV. 14. See Fig. 18, No. 2, IV. 15. Bowl fragment, buff, cream, chocolate, IV. 16. Bowl fragment, pink, cream, red, IV. 17. Tall-sided bowl fragment, buff, cream, chocolate, V. 18. Bowl fragment similar to No. 1, V. 19. Bowl fragment, light, cream, almost black, VI.

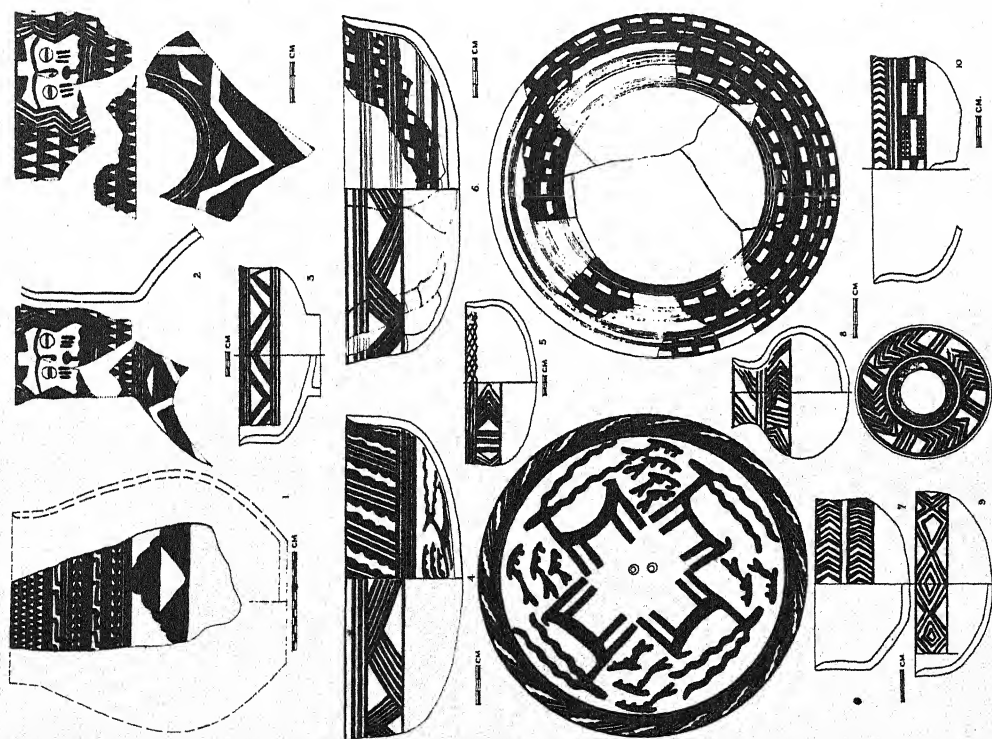


FIG. 1.—Levels IV-VI, Samarran painted ware

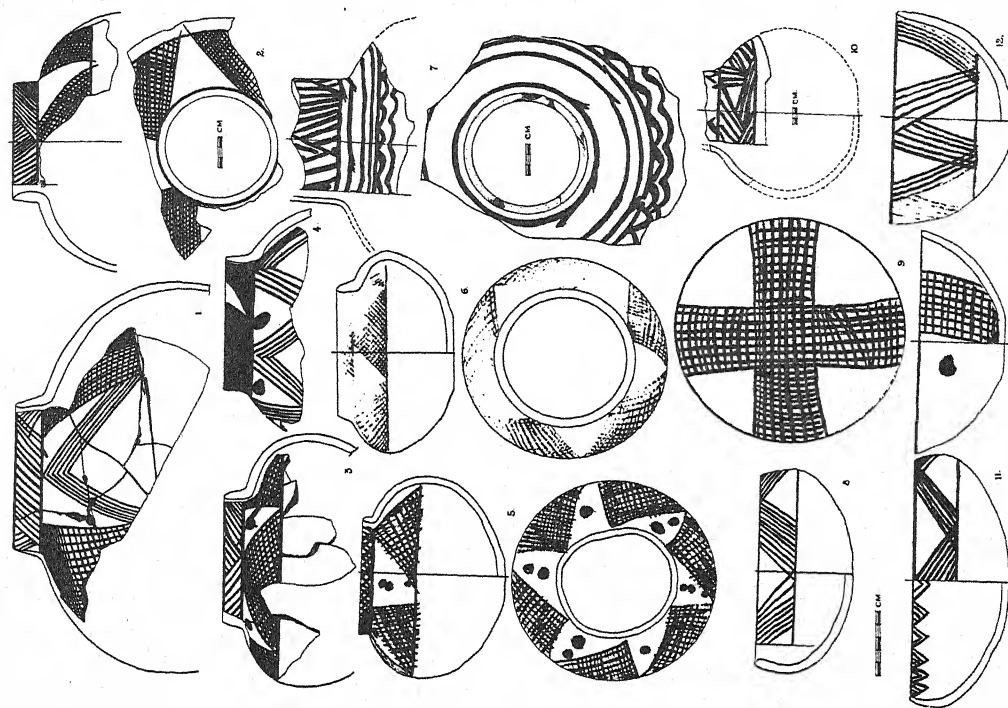


FIG. 2.—Levels II-VI, Hassuna standard painted ware (No. 9 is Hassuna archaic painted ware, Level II).

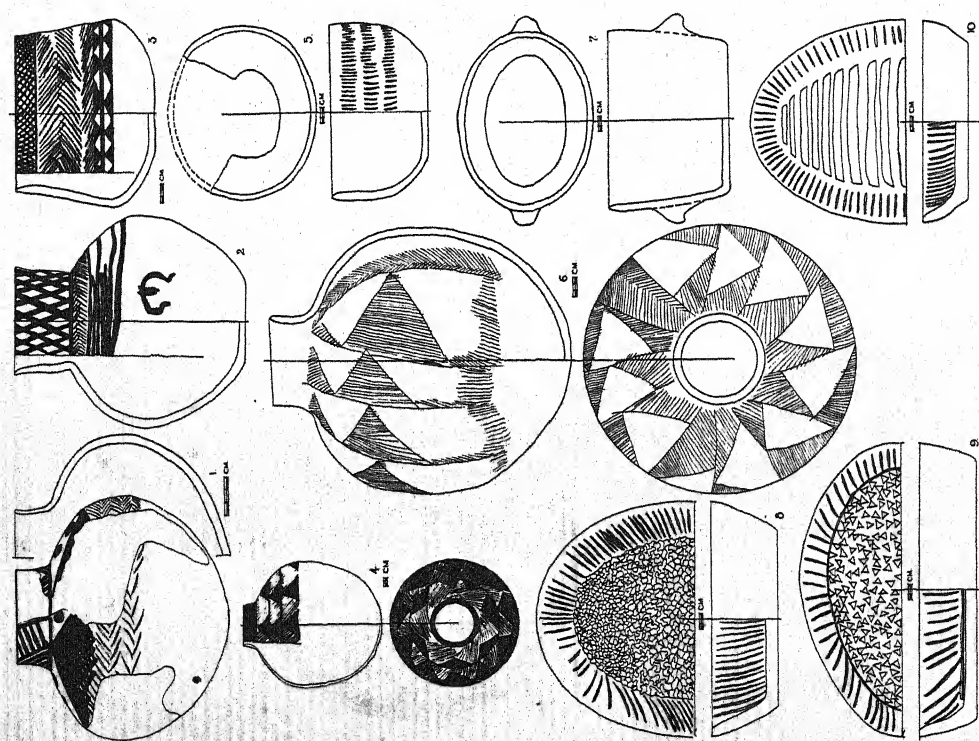


FIG. 3.—Levels II–VI; Hassuna standard painted-and-incised ware (Nos. 1–4), Hassuna standard incised ware (Nos. 5–6), “milk jar” coarse ware (No. 7), and “husking trays” (Nos. 8–10).

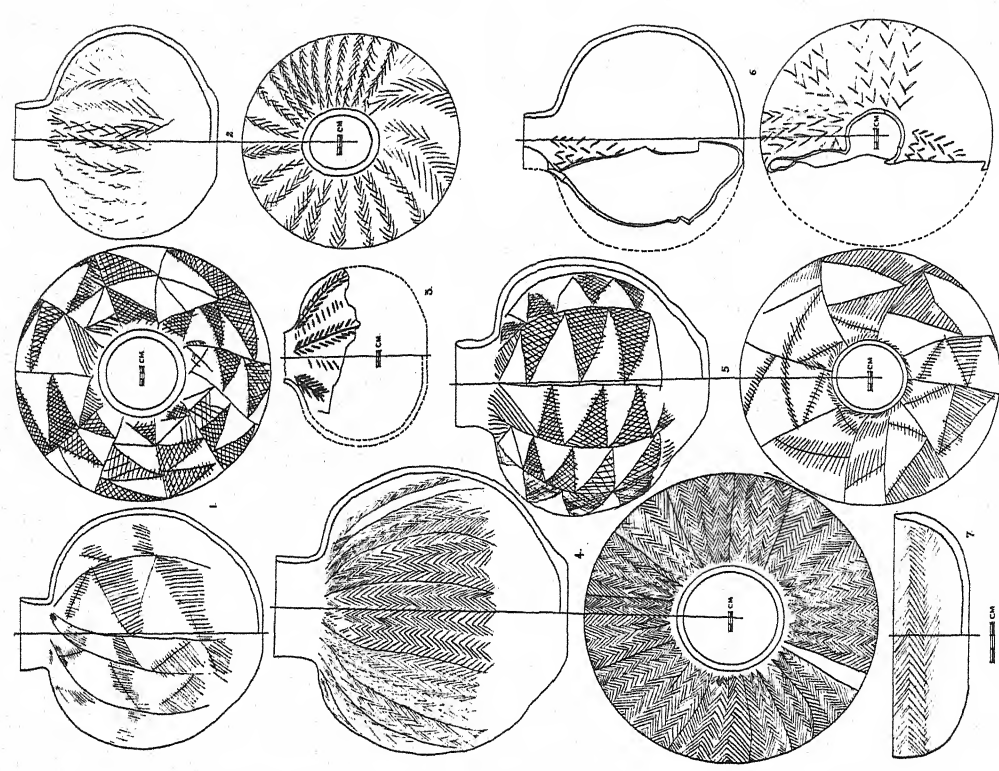


FIG. 4.—Levels Ic–VI; Hassuna standard incised ware

POTTERY, WARES AND SHAPES.

		ASSYRIAN	AL UDAID	HALAF	SAMARRAN		HASSUNA STANDARD		HASSUNA ARCHAIC					
		BOWLS ETC.	BOWLS ETC.	BOWLS ETC.	PAINTED BOWLS	PAINTED JARS	PAINTED AND INCISED BOWLS	PAINTED JARS	INCISED BOWLS	INCISED JARS	PAINTED BOWLS	PAINTED JARS	BURNISHED BOWLS	COARSE
LEVELS IN SUMMIT TRENCH.	XV	NEAR SURFACE												
	XIV	MUCH	26	26										
	XIII	UNRELIABLE												
	XII		5	18										
	XI		20	78		1	1		1	1				
	X			23		1								
	IX			21			SURVIVALS							
	VIII			316	6		3				M 5			
	VII			245	8	M 3	3	1		1				
	VI			44	4	5			1	2	M 2	1		
LEVELS IN MAIN AREA.	VI	65	6	8	54	4	3	7	75	55	9	18	M 250	8
	V	NEAR SURFACE UNRELIABLE			170	27	4	17	M 141	116	157	M 148	69	
	IV			ONE	90	55	1	9	M 124	68	242	M 345	136	
	III				9		3	1	20	147	M 217	72	22	
	II													
	I													
	11													
	10													
	13													
	14													

VIRGIN SOIL.

TELL HASSUNA • TABULATION OF FINAL SHERD-COUNT.

FIG. 5.—Tabulation of final sherd count; season of 1944

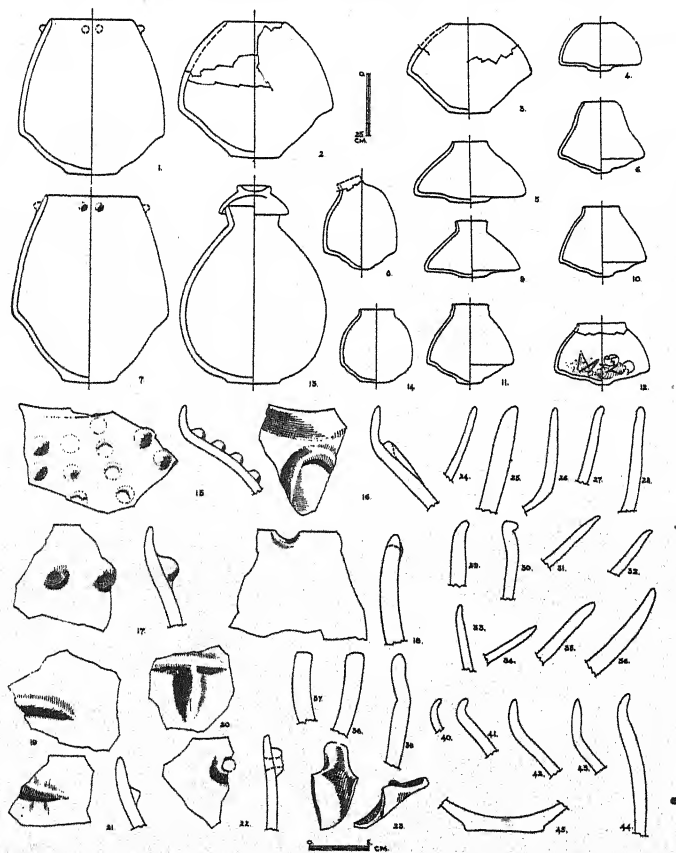


FIG. 6.—Levels 1a-1c; Hassuna archaic coarse ware, type shapes and miscellaneous features.

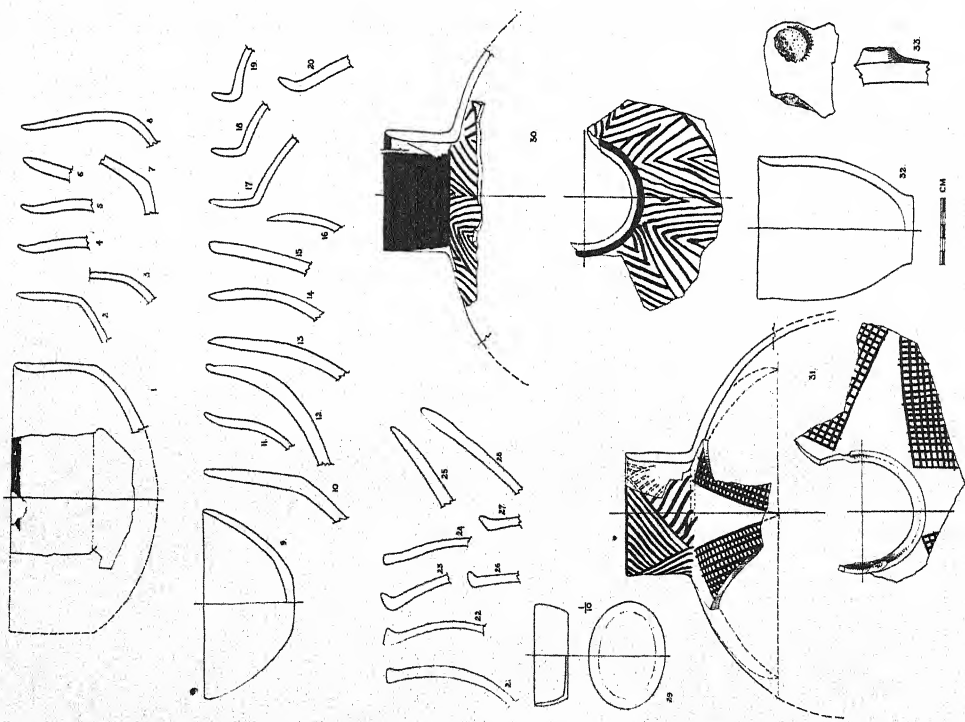


FIG. 7—Levels Ia-II; Hassuna archaic plain, burnished, and painted wares.

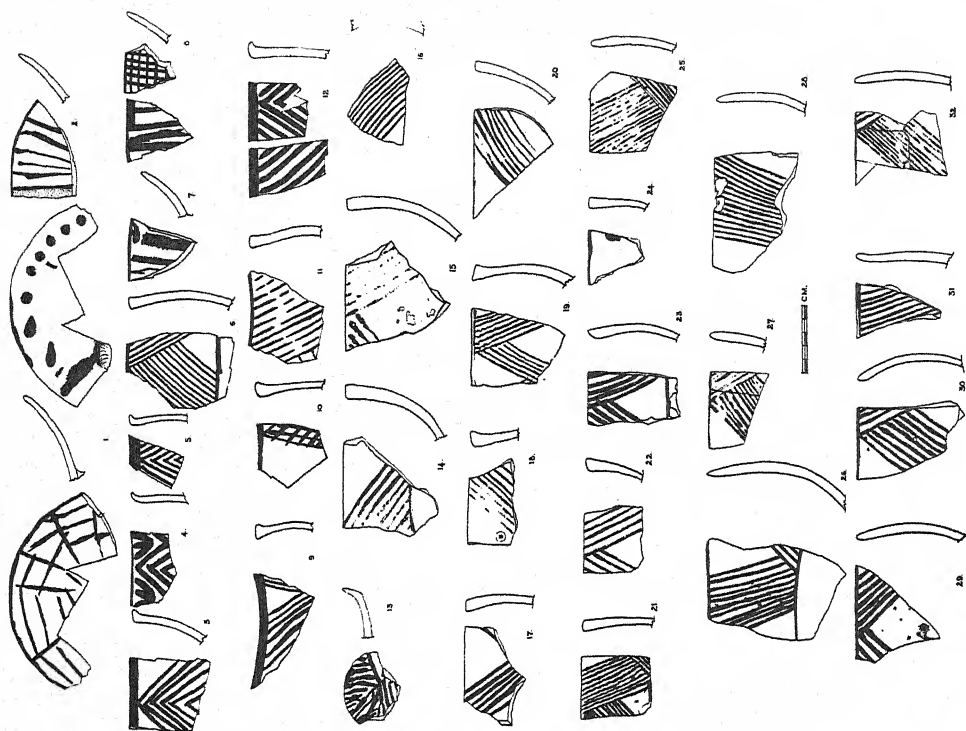


FIG. 8.—Level Ic (Nos. 1-12), Level III (Nos. 13-32); Hassuna archaic painted ware. Level II examples exactly similar.

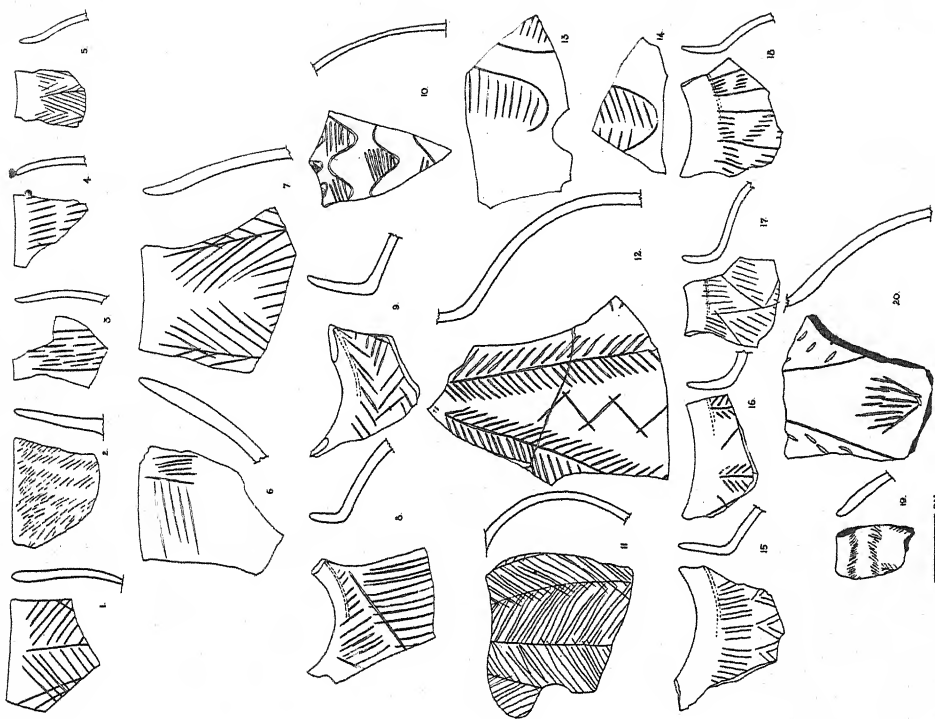


Fig. 10.—Levels Ib-II; early Hassuna standard incised ware, bowls (Nos. 1-7) and jars (Nos. 8-20).

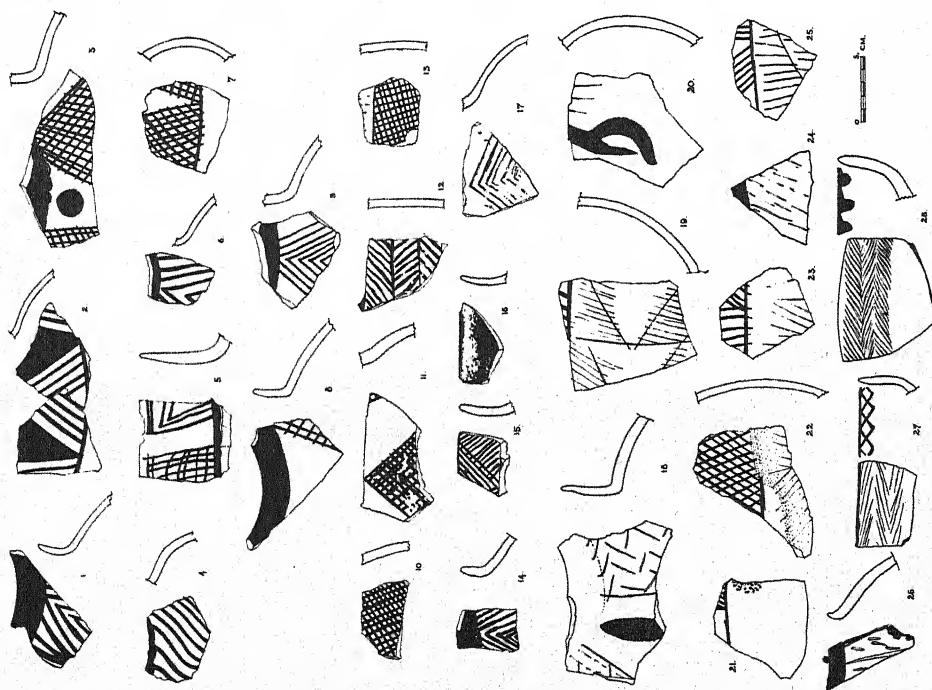


Fig. 9.—Levels Ic-III; Hassuna archaic painted ware jar sherds (Nos. 1-17), and early Hassuna standard painted-and-incised ware (Nos. 18-28).

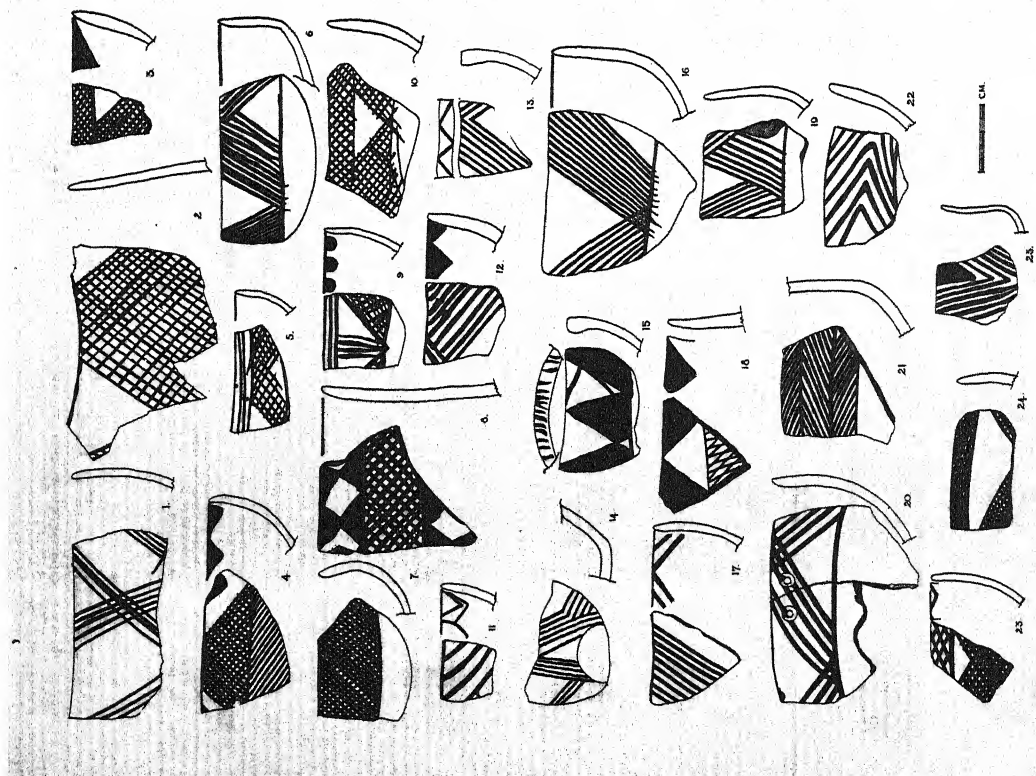


FIG. 11.—Levels Ic (Nos. 1-2), IV (Nos. 3-19), and V (Nos. 20-25); Hassuna standard painted ware, bowl sherds.

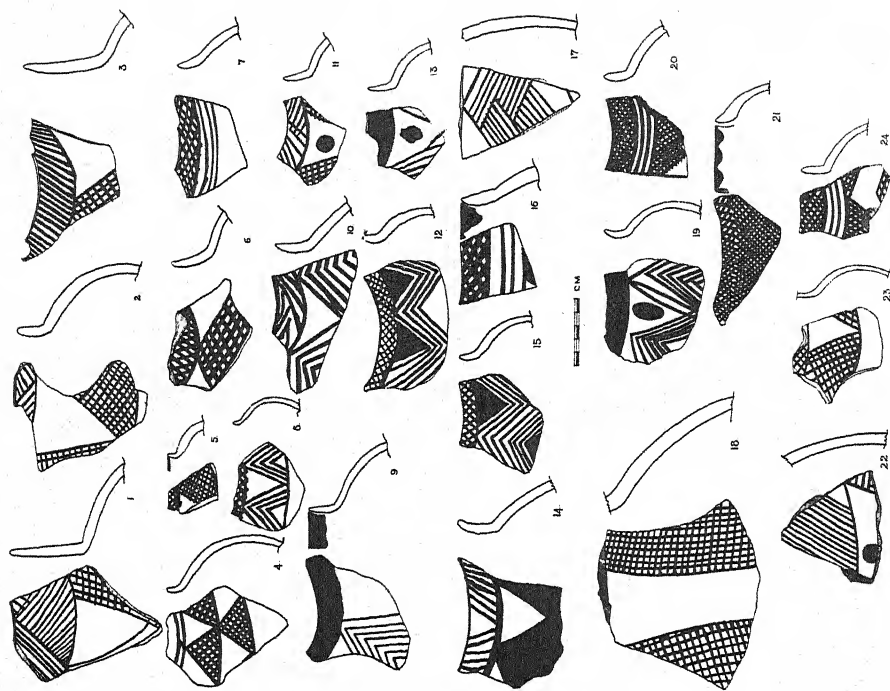


FIG. 12.—Levels IV (Nos. 1-17) and V (Nos. 18-24); Hassuna standard painted ware, jar sherds.

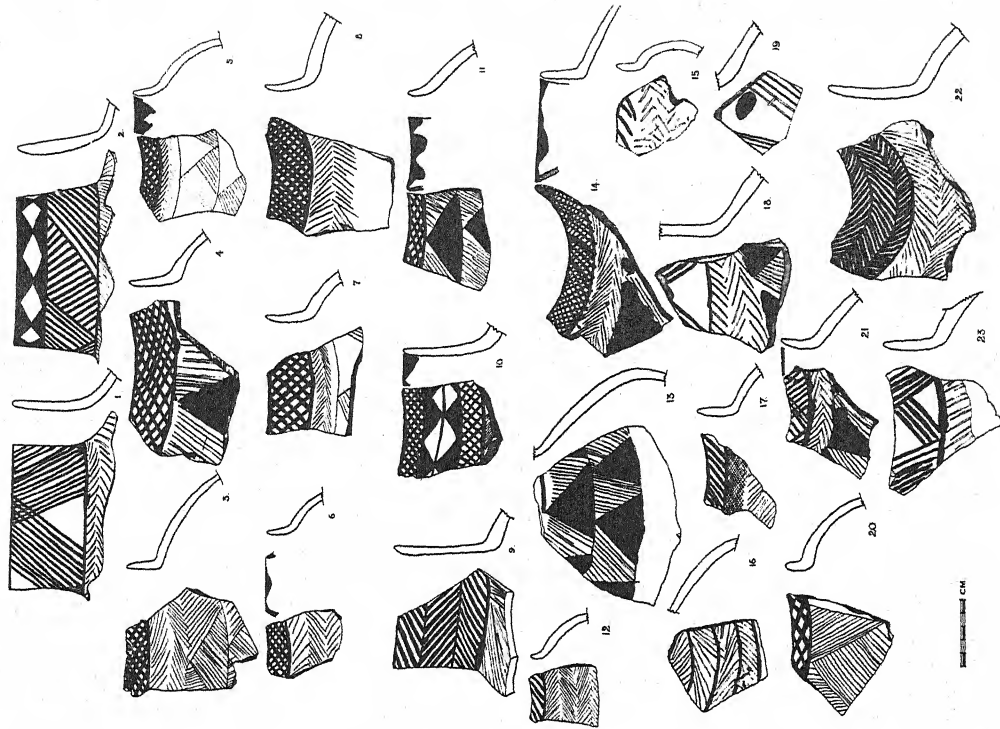


FIG. 14.—Levels IV (Nos. 1-8) and V (Nos. 9-23); Hassuna standard and painted-and-incised ware, jar sherds.

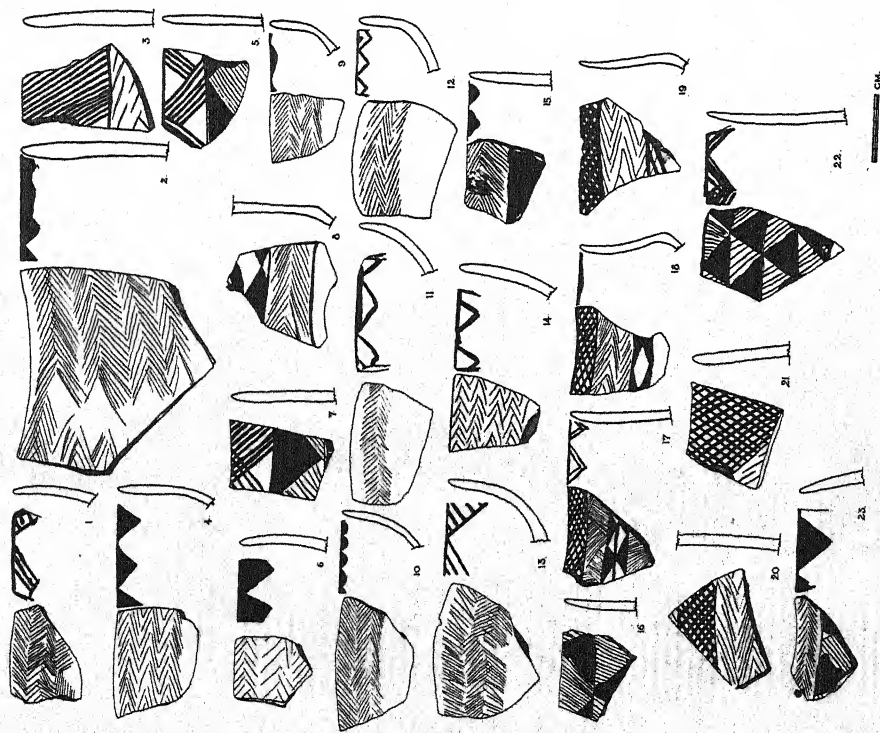


FIG. 13.—Levels IV (Nos. 1-8) and V (Nos. 9-23); Hassuna standard painted-and-incised ware, bowl and tall-sided bowl sherds.

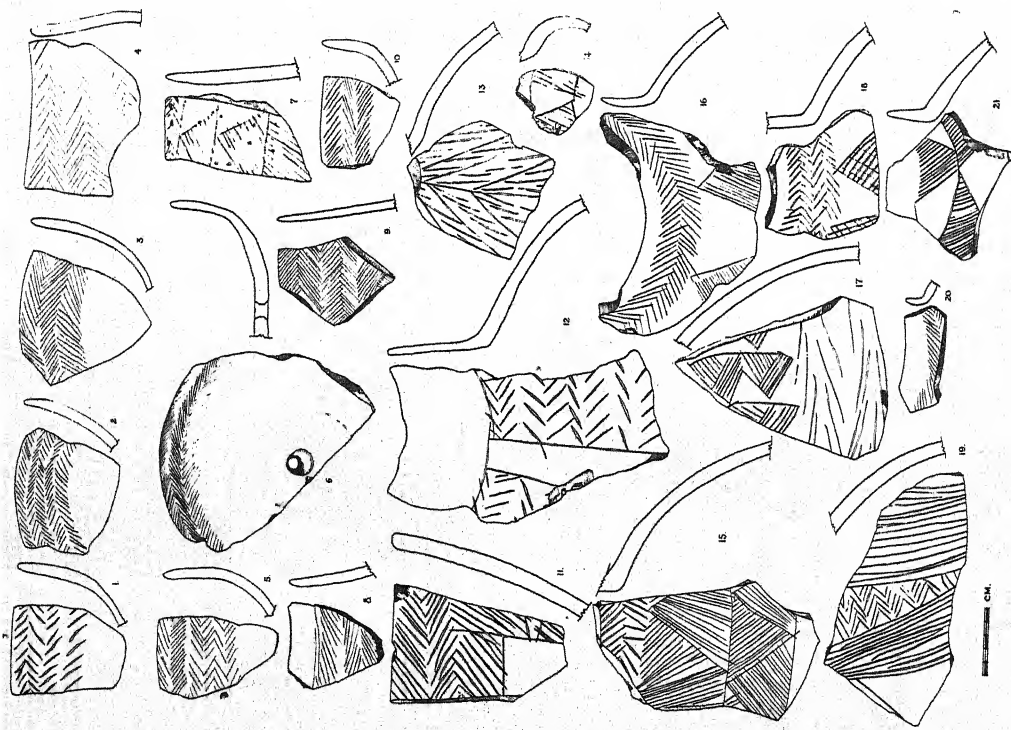


FIG. 15.—Levels IV (Nos. 1-6, 11-12) and V (Nos. 7-10, 13-21); Hassuna standard incised ware, bowl (Nos. 1-11) and jar sherds (Nos. 12-21).

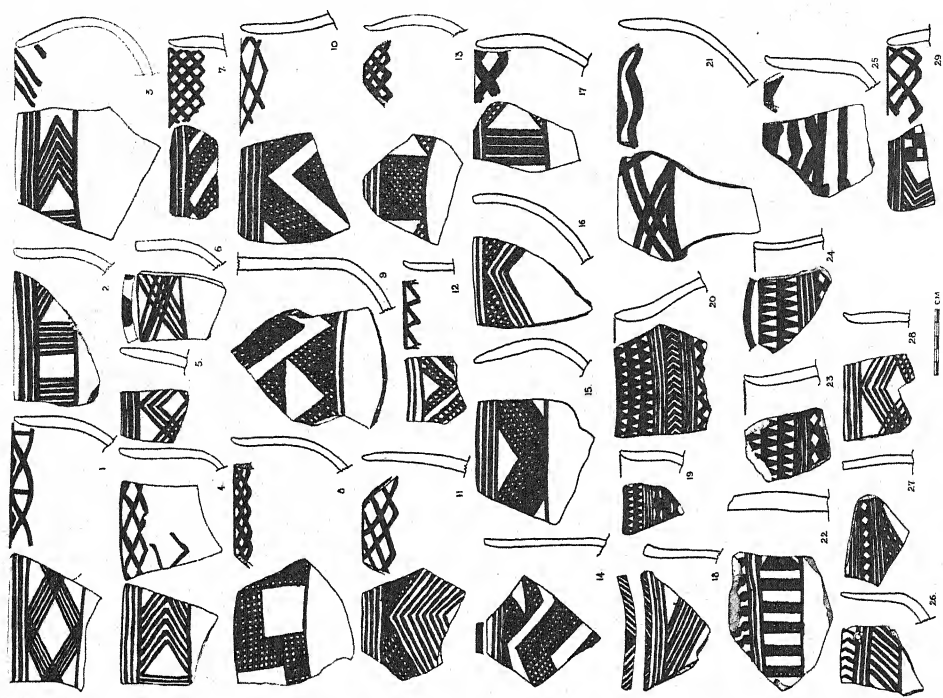


FIG. 16.—Level IV; Samarran painted ware, bowl sherds

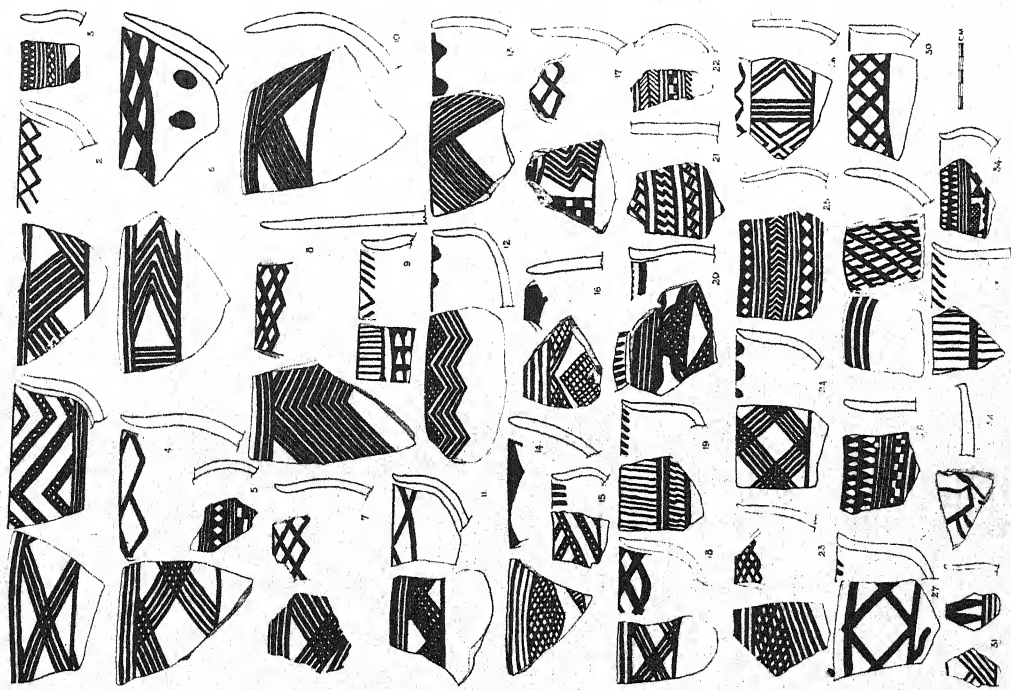


Fig. 17.—Level V; Samarran painted ware, bowl sherds

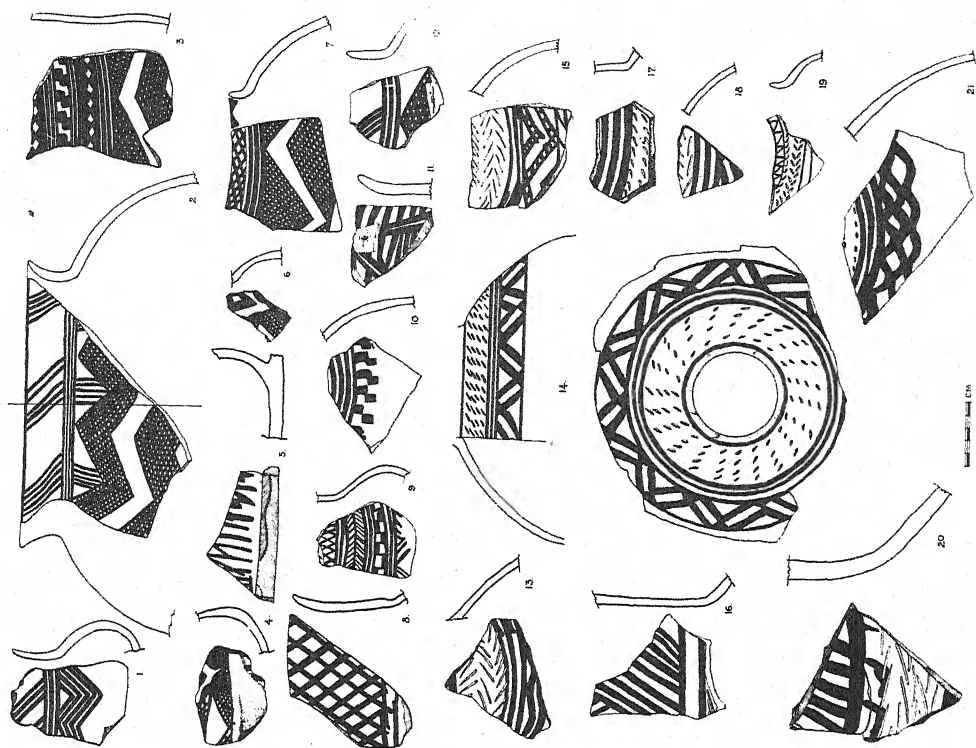


Fig. 18.—Levels IV (Nos. 1-6), V (Nos. 7-13, 15-21), and VI (No. 14); Samarran painted and painted-and-incised ware, jars.

FIG. 20.—Levels Ia (Nos. 1 and 2) and IV; hoes of sandstone (No. 1) and quartzite.

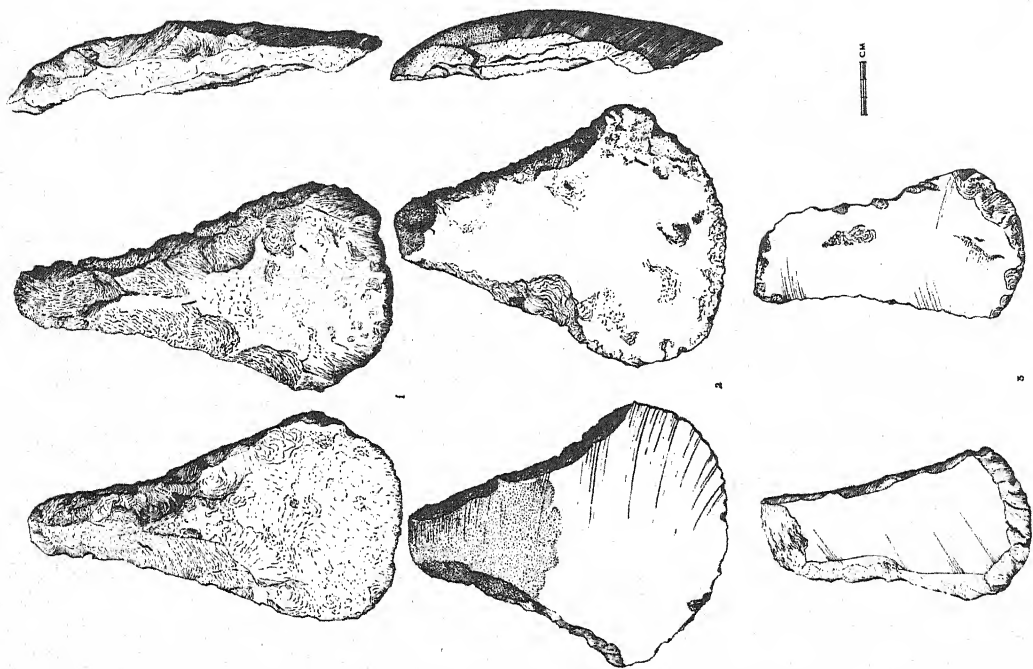


FIG. 19.—Level Ia; hoes of quartzite with traces of bitumen adhering.

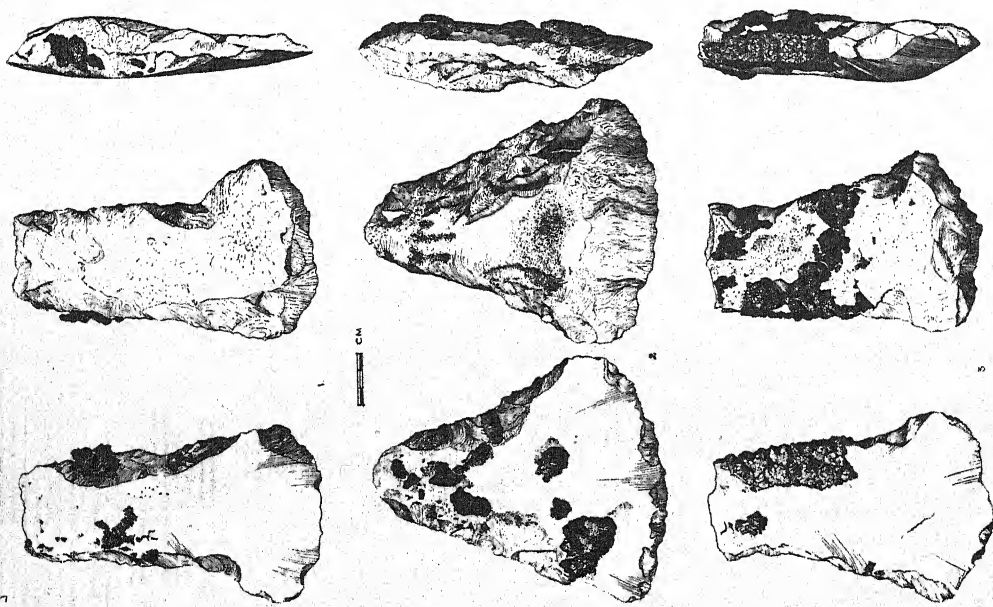




FIG. 21.—Levels Ia-VI; celts with smoothed and polished working edges.

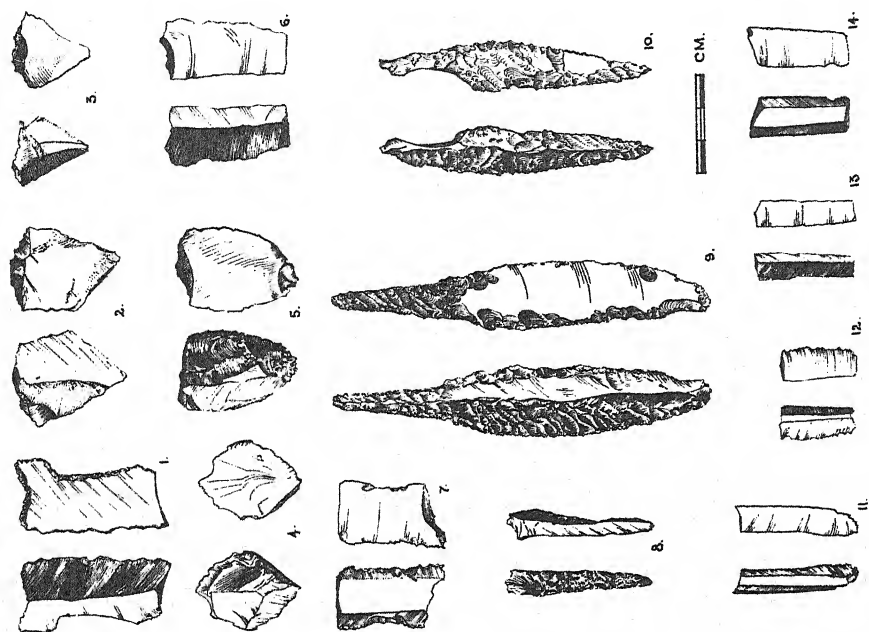


FIG. 22.—Level Ia; flint and obsidian artifacts

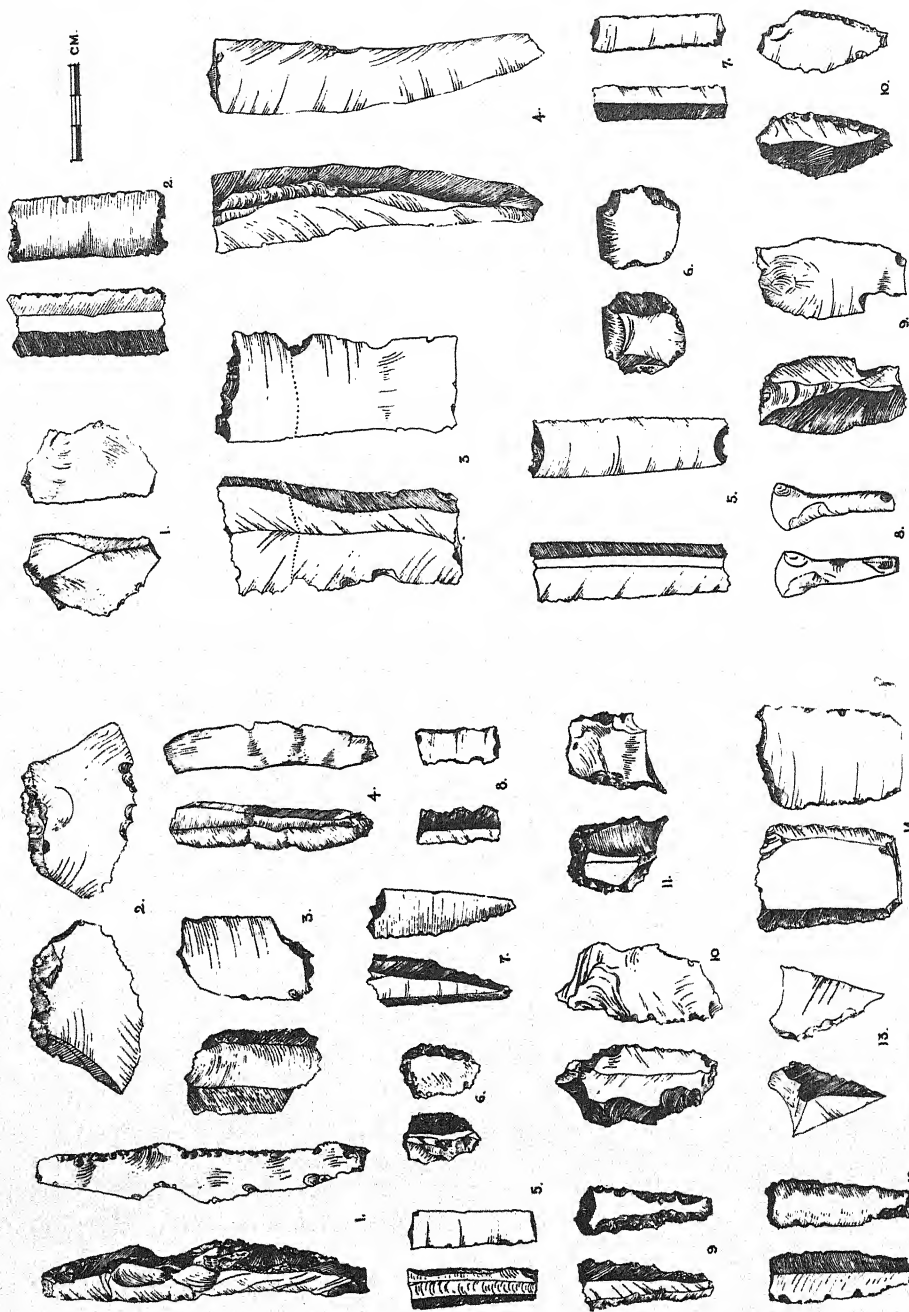


Fig. 23.—Levels Ib (Nos. 8-14) and Ic (Nos. 1-7); flint and obsidian artifacts.

Fig. 24.—Level II; flint and obsidian artifacts

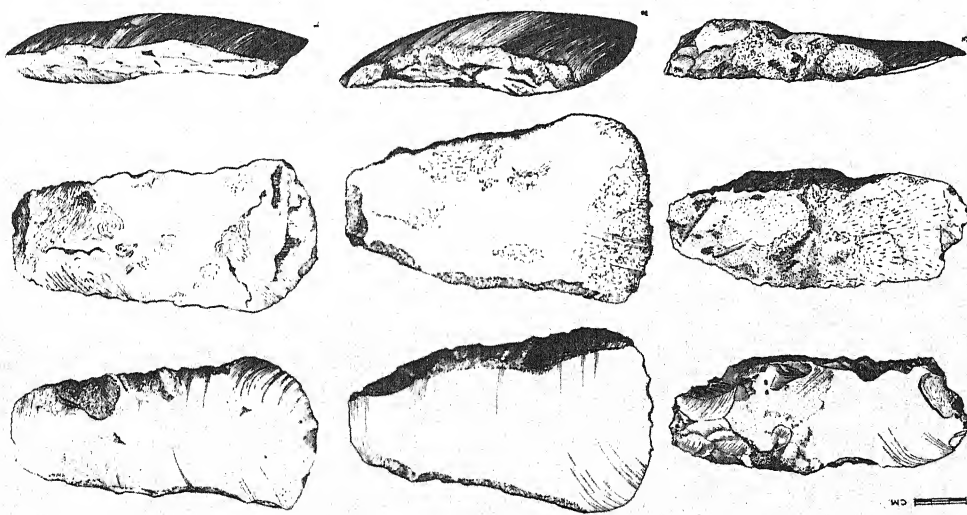


FIG. 25.—Level II; hoes in quartzite (Nos. 1-2) and greenish limestone; bitumen traces, Nos. 1 and 3.

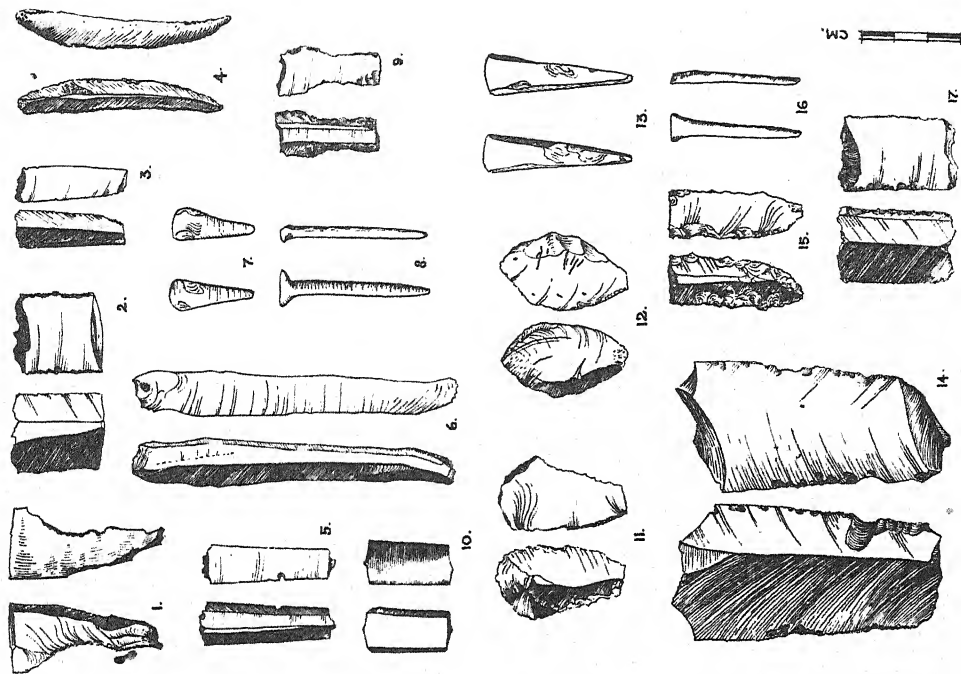


FIG. 26.—Levels III (Nos. 10-17), IV (Nos. 5-9), and V (Nos. 1-4); flint and obsidian artifacts.

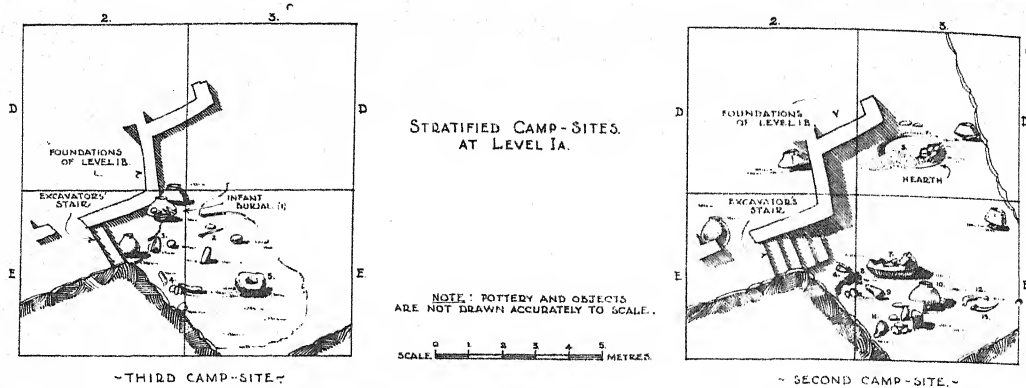


FIG. 27.—Level Ia; camp sites

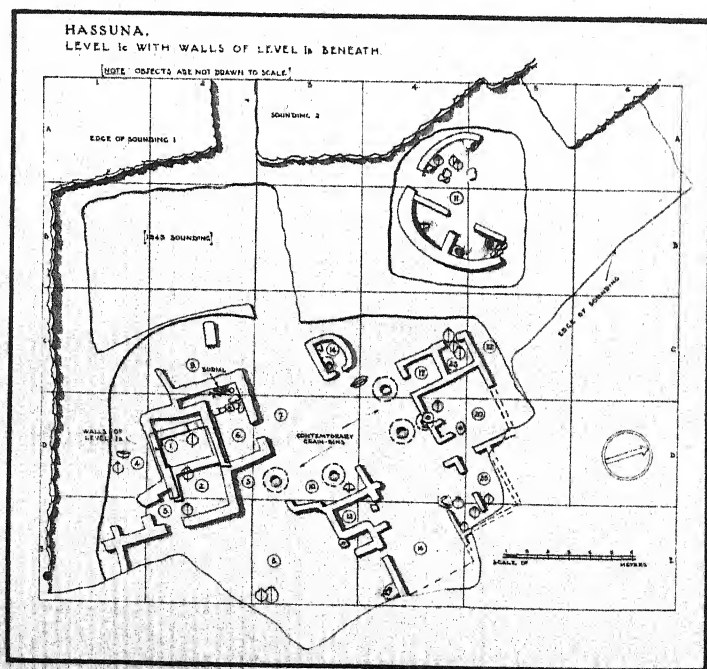


FIG. 28.—Level Ic with walls of Level Ib beneath; architecture

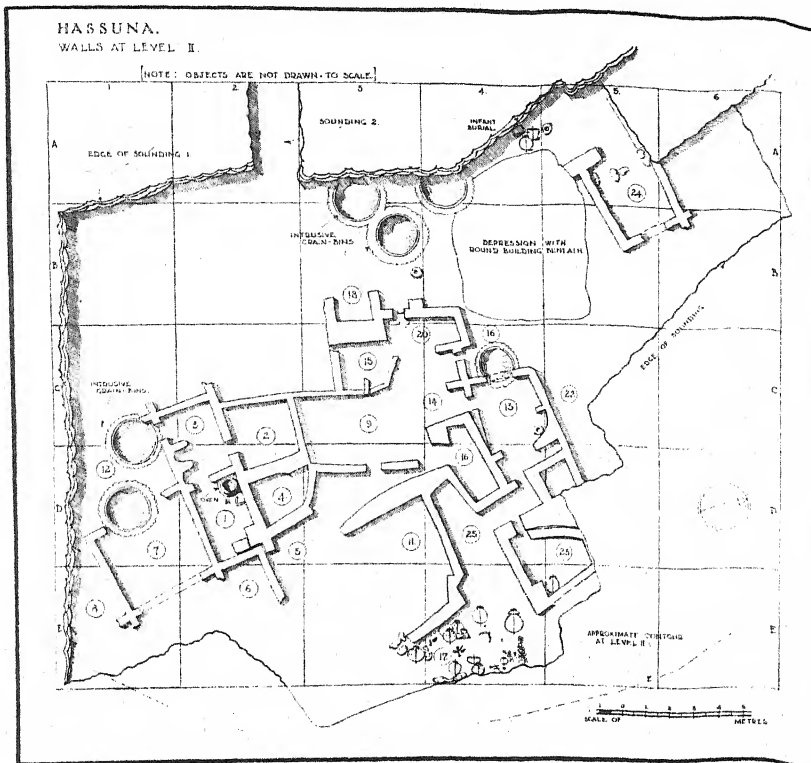


FIG. 29.—Level II; architecture

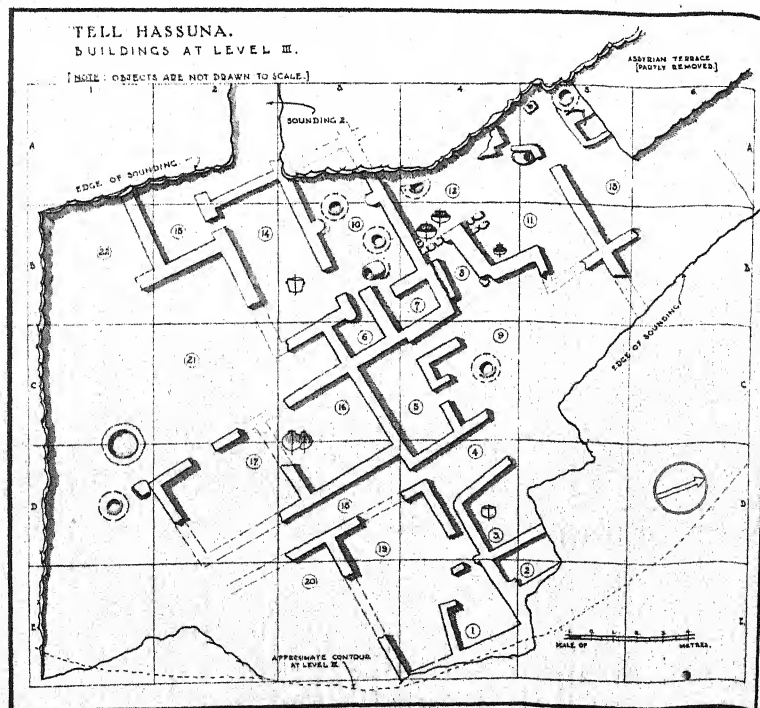


FIG. 30.—Level III; architecture

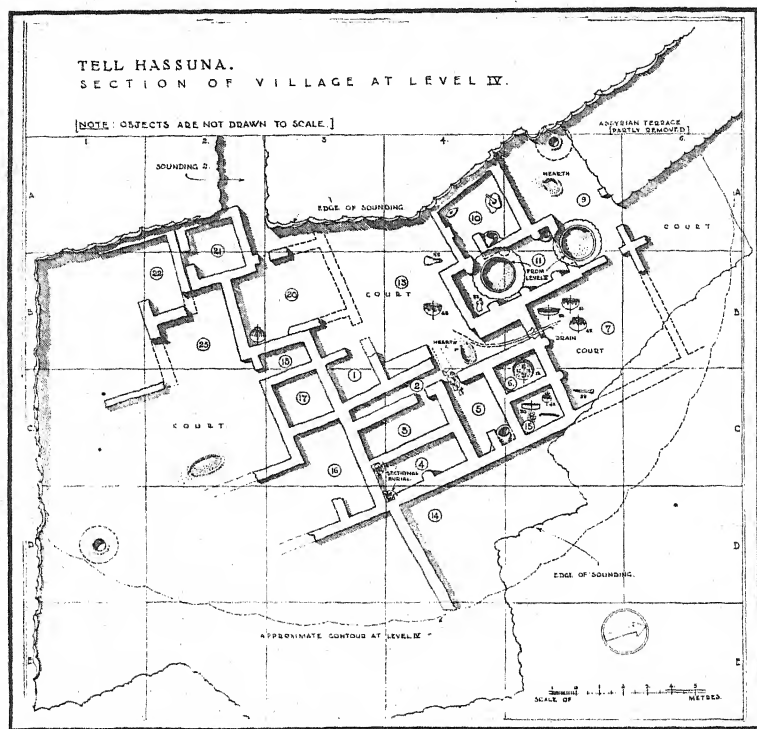


FIG. 31.—Level IV; architecture

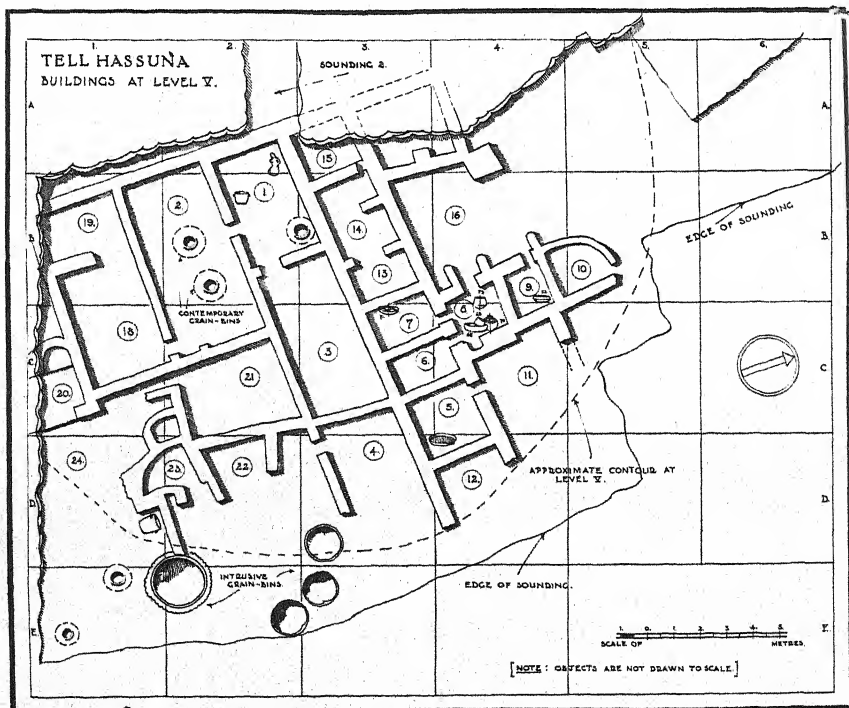


FIG. 32.—Level V; architecture

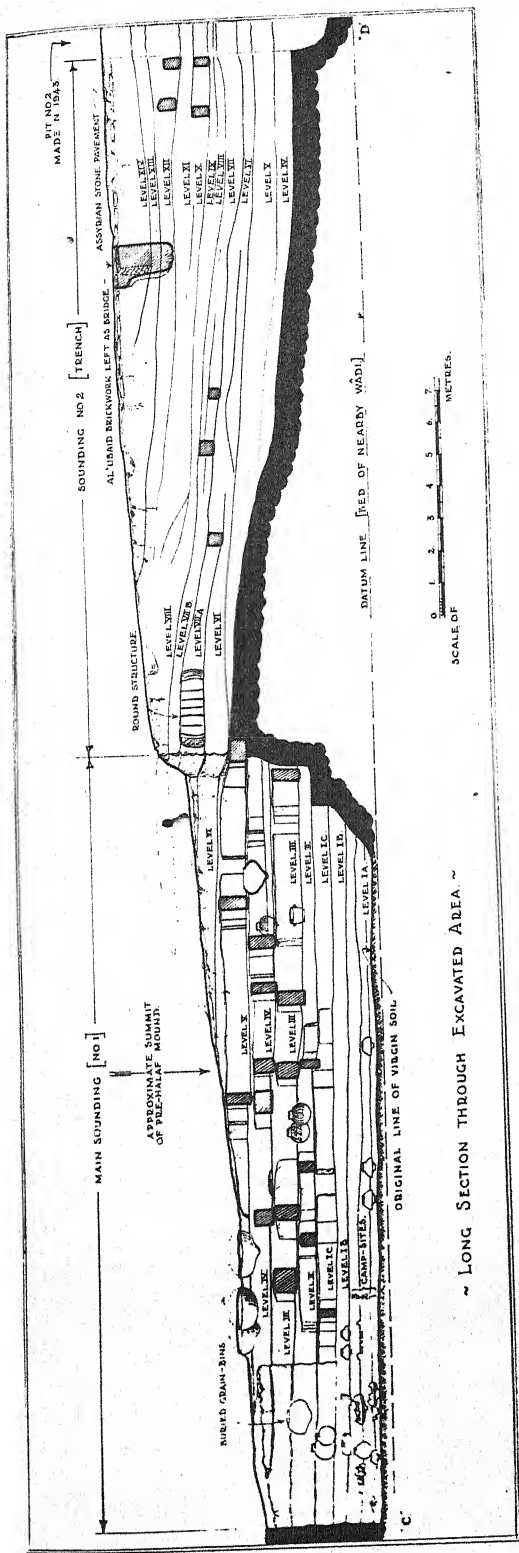


Fig. 33.—Long section "C-D" through Soundings 1 and 2

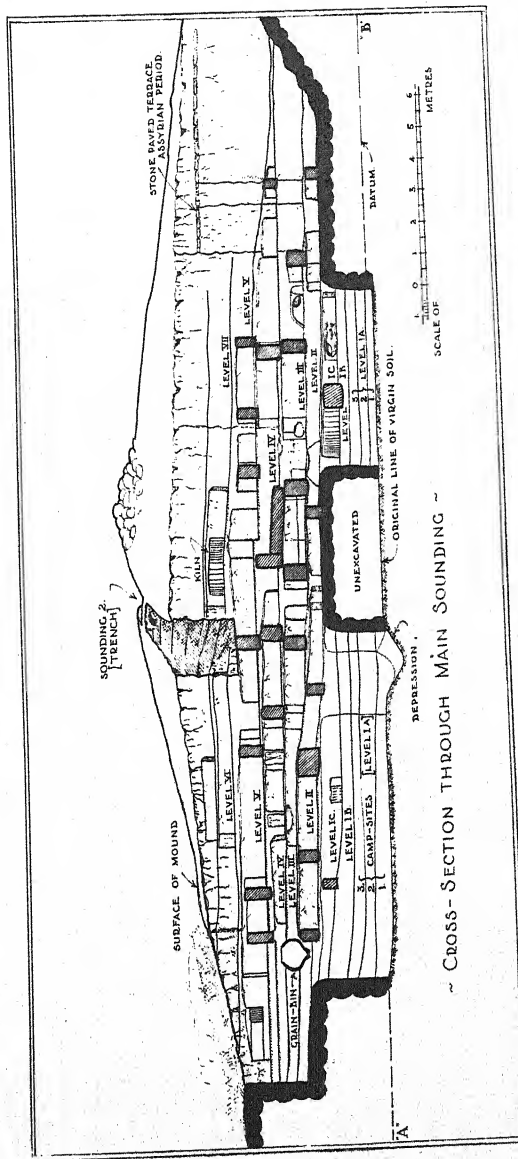


Fig. 34.—Cross-section "A-B" through Sounding 1

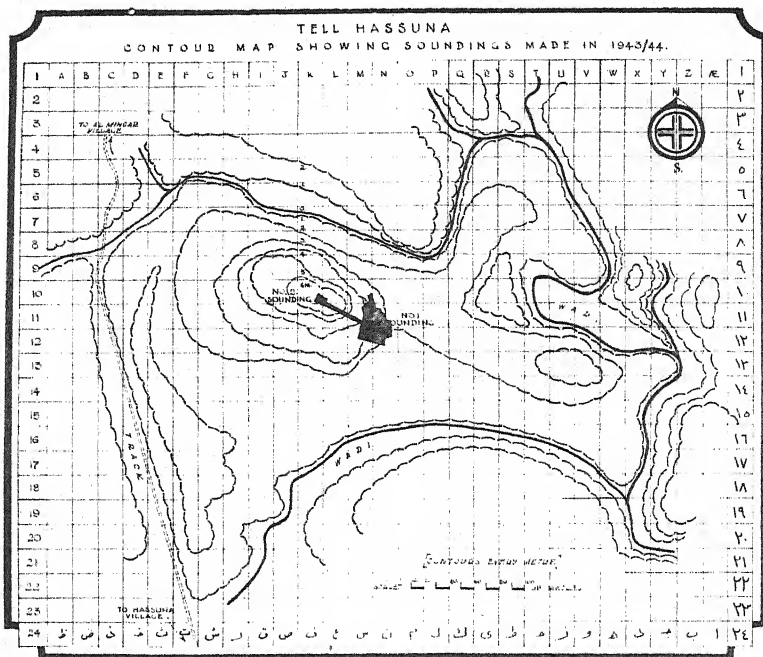


FIG. 35.—Site plan

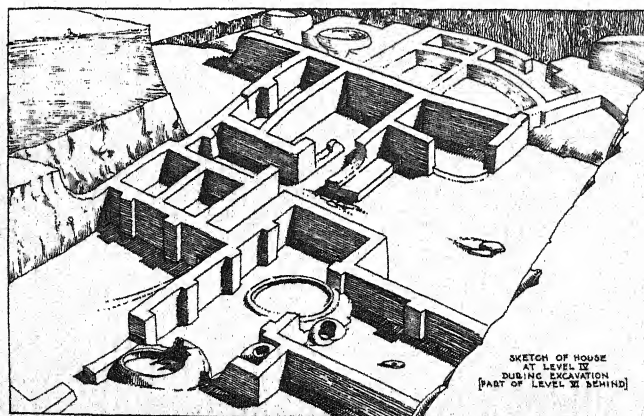
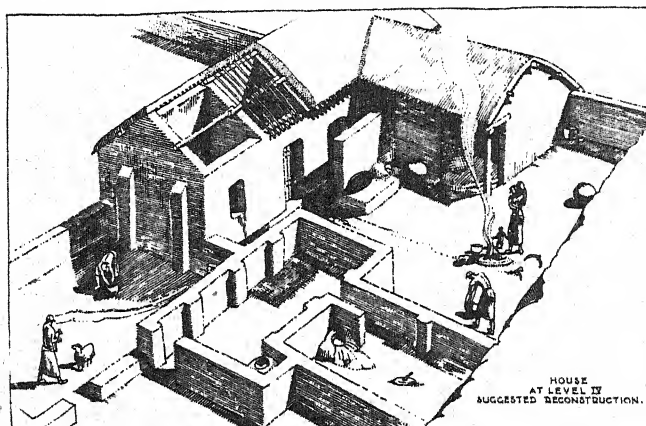


FIG. 36.—Level IV; suggested reconstruction of a house and sketch plan of the level as found.

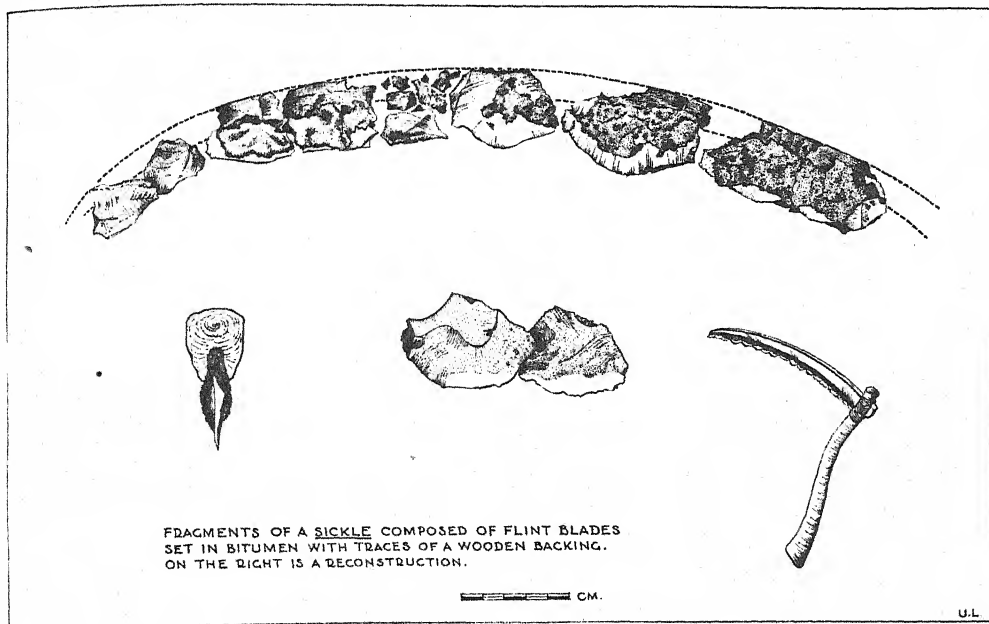


FIG. 37.—Level III; flint-bladed sickle as found and suggested restoration

REED-MATTING FROM LEVEL IV.

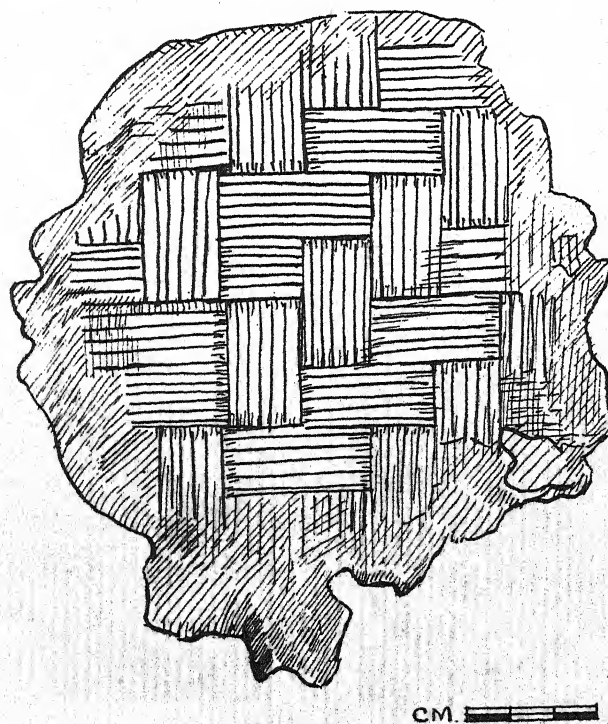
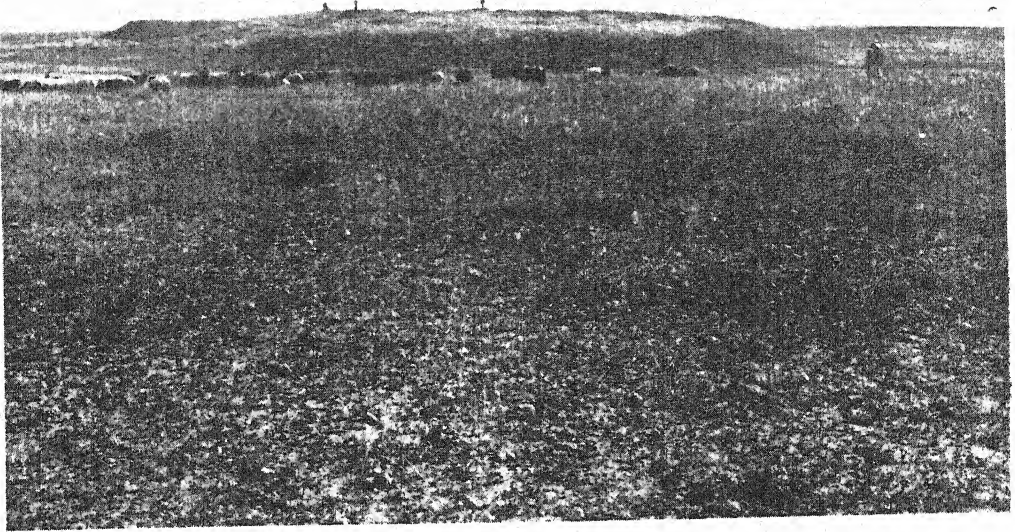
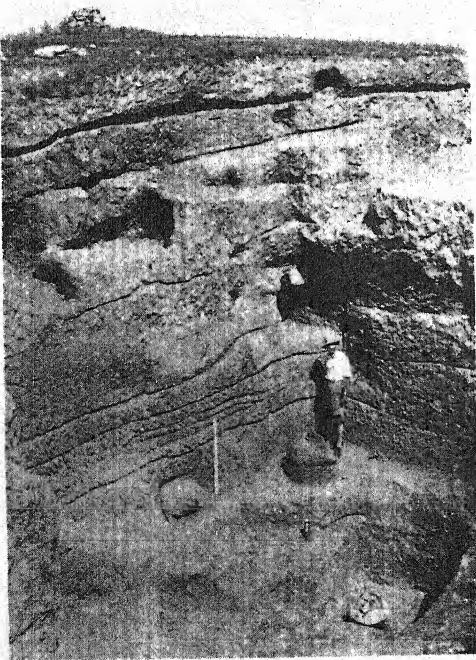


FIG. 38.—Level III; pattern of reed matting

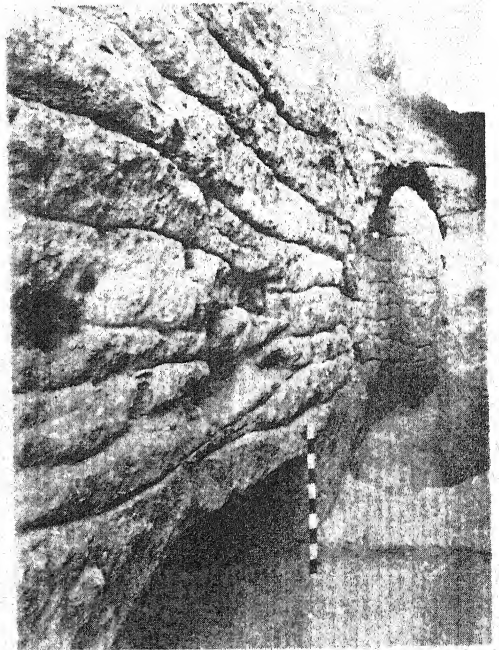
PLATE I



1. TELL HASSUNA; APPEARANCE OF THE MOUND FROM THE NORTH IN SPRING, 1944

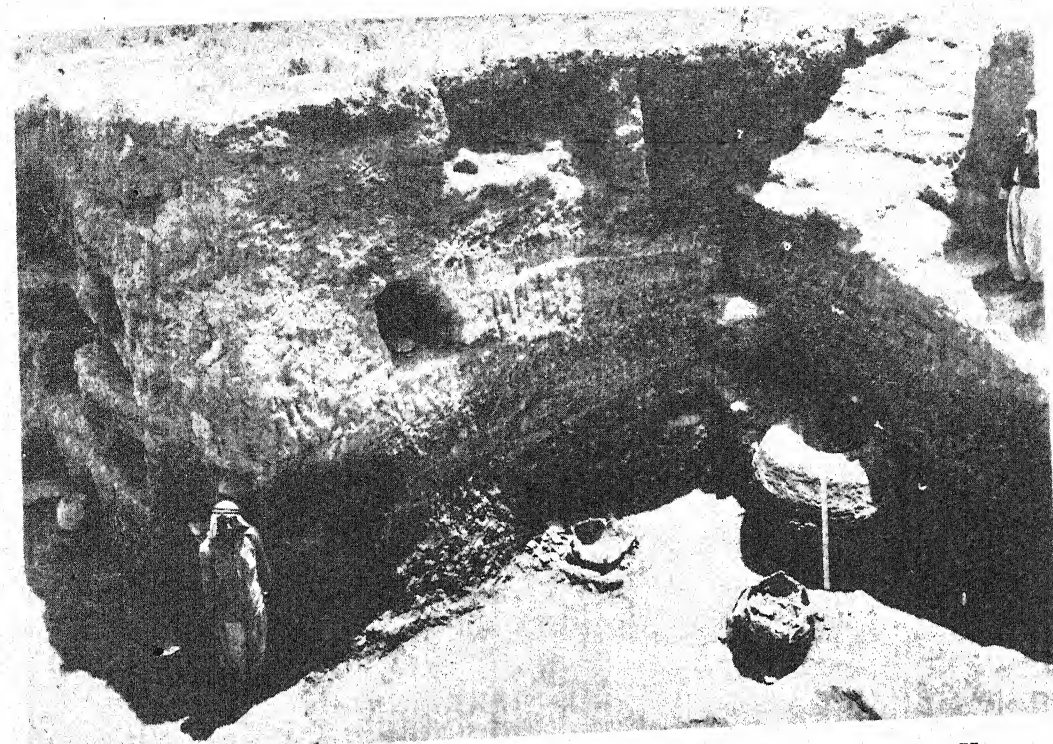


2. SOUNDING 1; NORTHWEST CORNER AT END OF 1943 SEASON. JAR IN LOWER RIGHT-HAND CORNER IS SUNK INTO VIRGIN SOIL

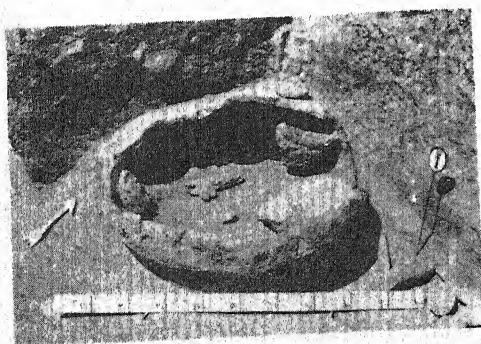


3. TRENCH LINKING SOUNDINGS 1 AND 2, 1944

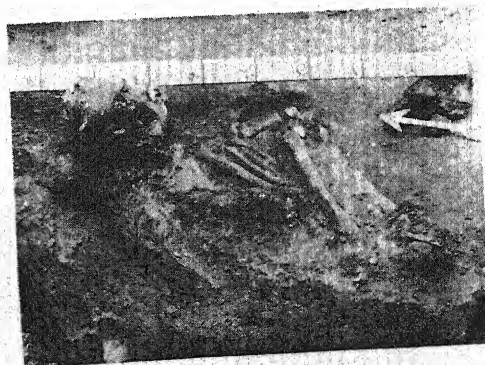
PLATE II



1. SOUNDING 1, SOUTHWEST CORNER, 1943. GRAIN BIN SUNK FROM FLOOR OF LEVEL II,
AND FRAGMENTARY JARS OF LEVEL Ia

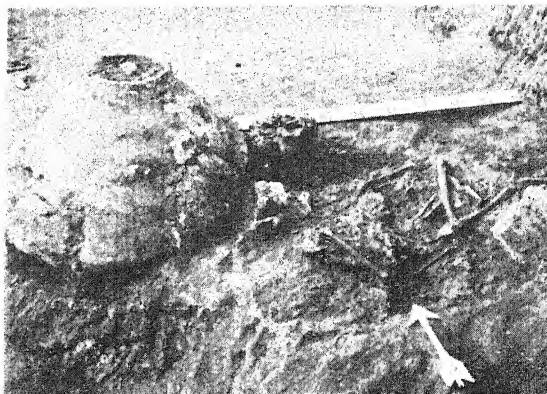


2. LEVEL II, ROOM 1; THE BREAD OVEN

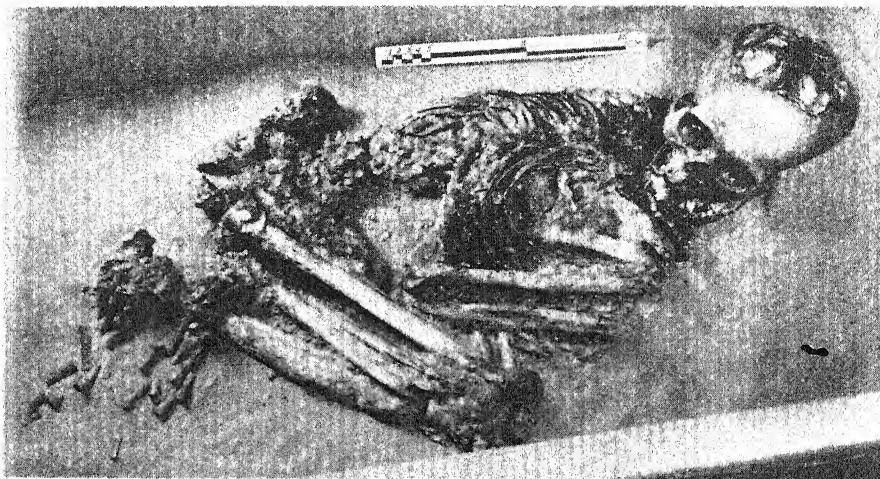


3. LEVEL Ic, ROOM 6; BURIAL

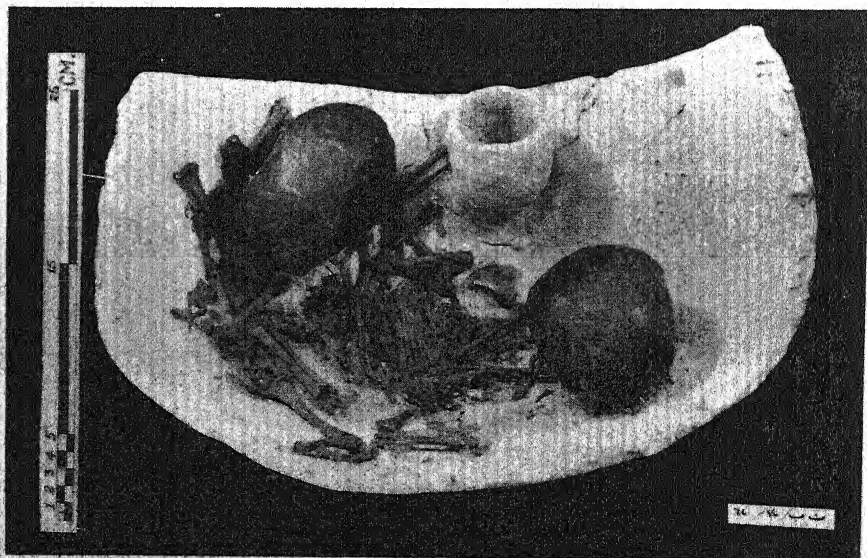
PLATE III



1. LEVEL Ia; BURIAL

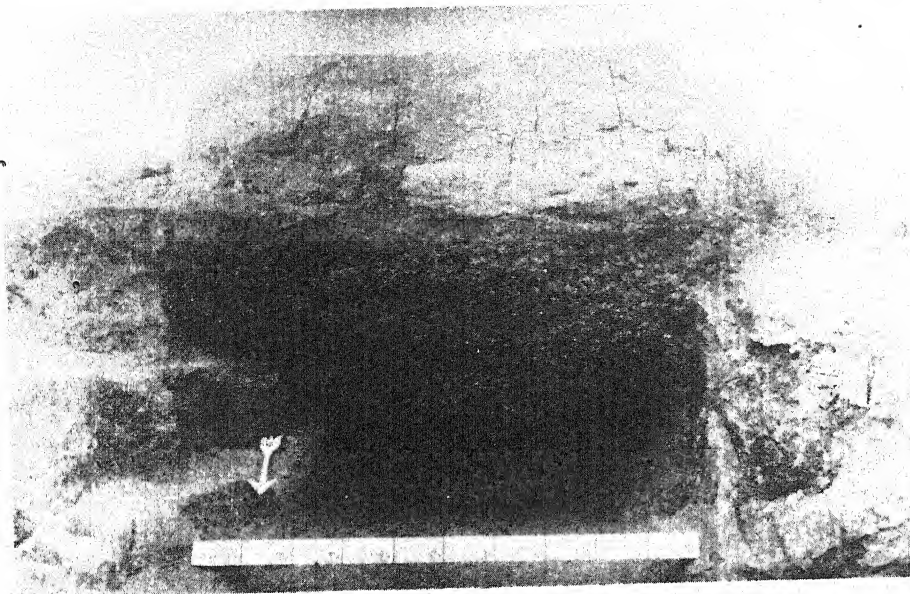


2. LEVEL Ic, ROOM 6; THE BURIAL AS RESTORED IN THE IRAQ MUSEUM

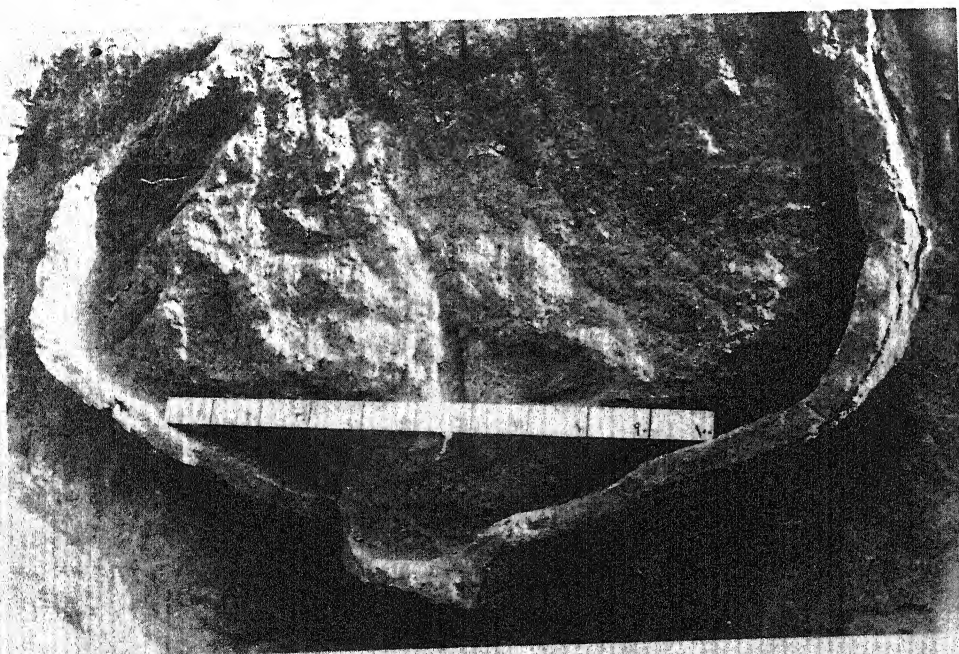


3. LEVEL II; DOUBLE INFANT BURIAL IN A HASSUNA STANDARD
INCISED WARE JAR, AS RECONSTRUCTED

PLATE IV

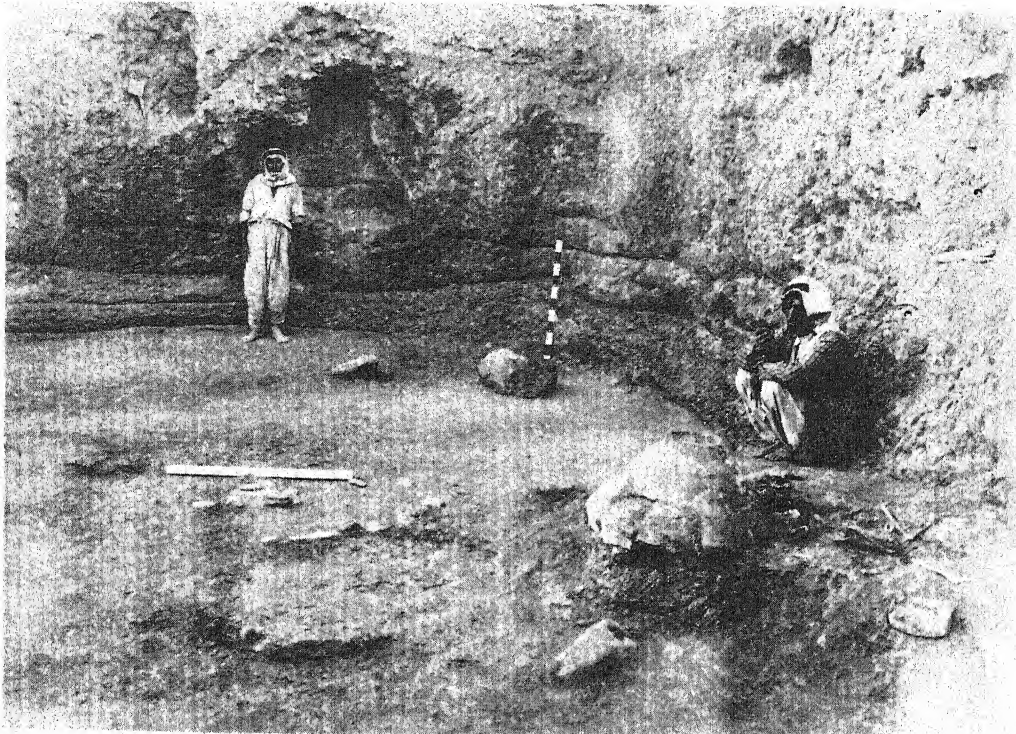


1. A GRAIN BIN EXPOSED TO INDICATE ITS PROFILE

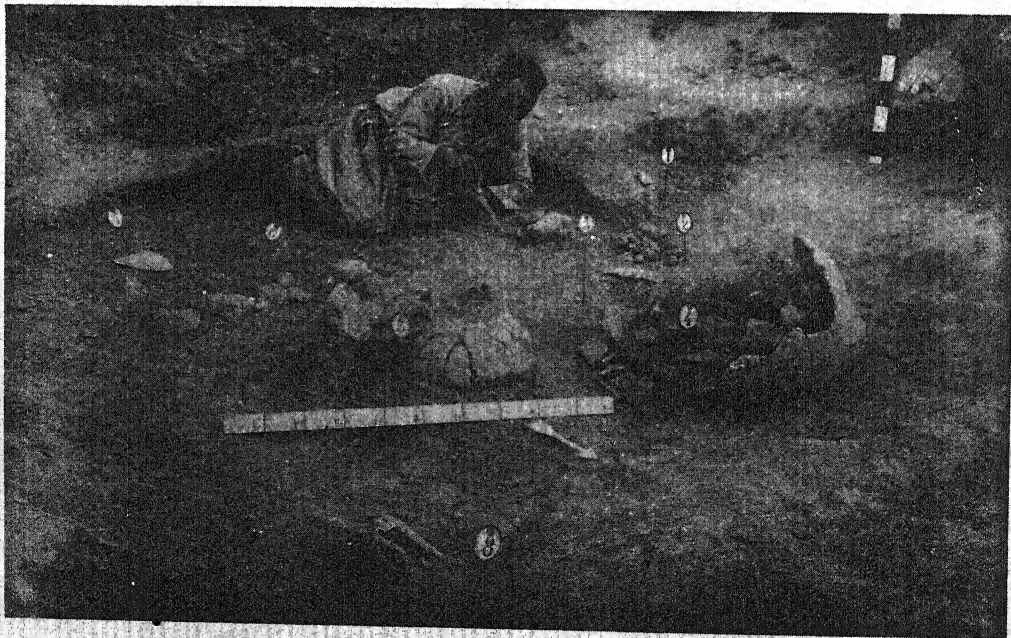


2. LEVEL III; GRAIN BIN SEEN IN SECTION, SHOWING
BITUMEN COATING AND GYPSUM LINING

PLATE V



1. LEVEL Ia; EARLIEST CAMP SITE, ON VIRGIN SOIL. PAVED HEARTH, WITH ASHES REMOVED, IN LEFT FOREGROUND



2. LEVEL Ia; SECOND CAMP SITE. THE HEARTH IS OUT OF THE PICTURE, TO THE RIGHT

PLATE VI

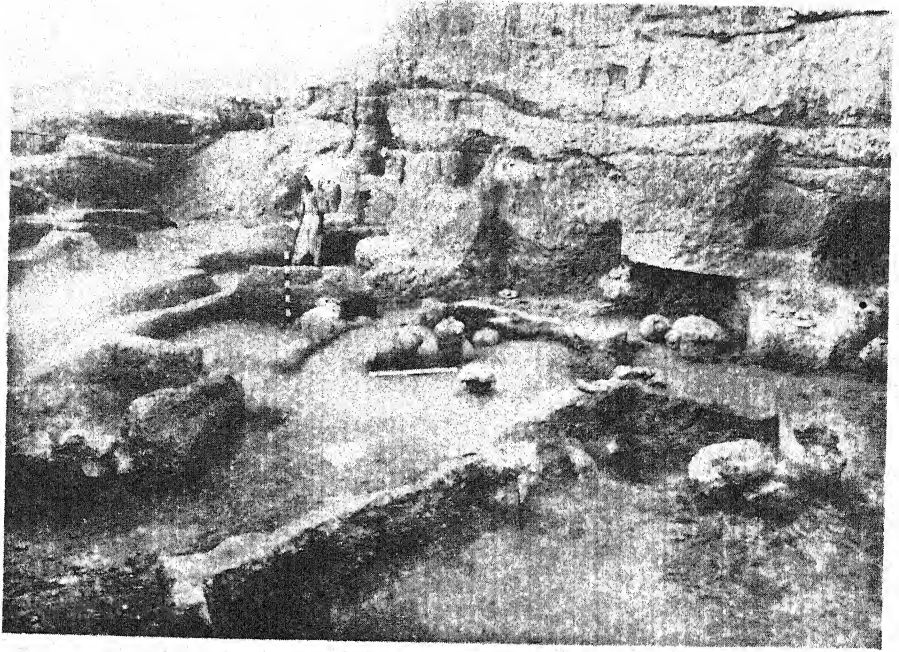


1. LEVEL Ia; THIRD CAMP SITE, WHEREIN THE HEARTH WAS
PROBABLY BEYOND THE LIMIT OF EXCAVATIONS

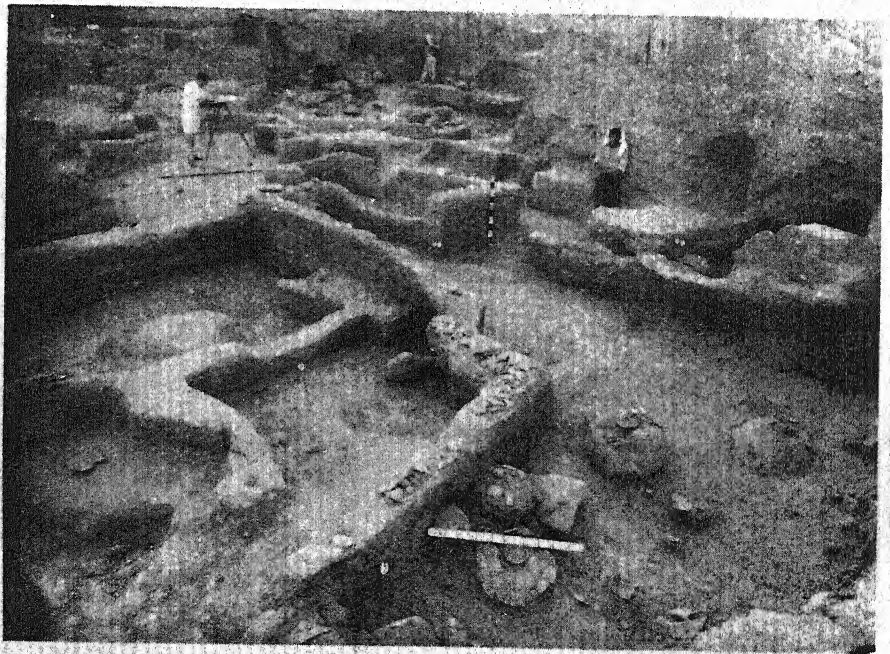


2. INTRUSIVE INTO LEVEL Ia; EARLY EXAMPLES OF GRAIN BINS

PLATE VII



1. LEVEL Ic; SEMICIRCULAR BUILDING SEEN FROM THE NORTH. IN RIGHT BACKGROUND, A LARGE JAR CONTAINING DOUBLE INFANT BURIAL OF LEVEL II

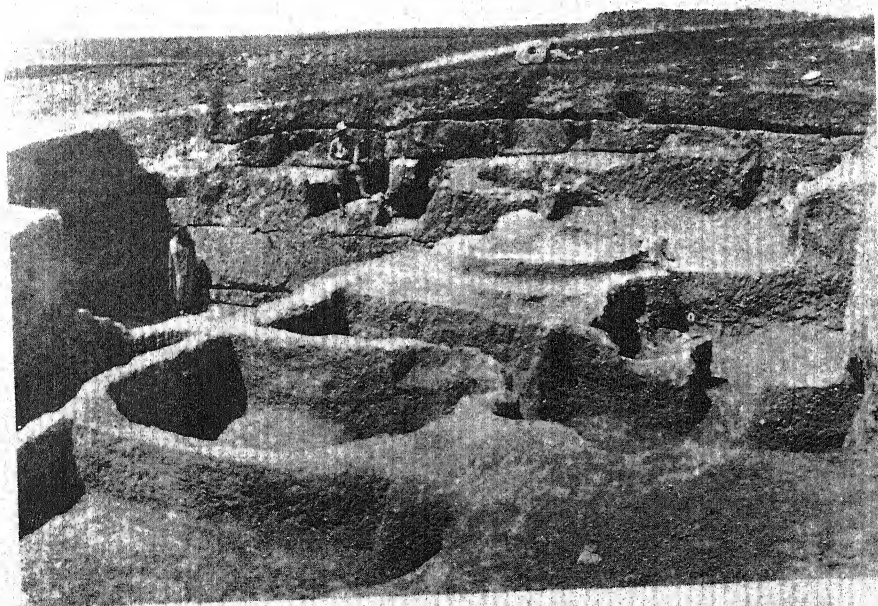


2. LEVEL II; GENERAL VIEW, WITH LEVEL Ic WALLS APPEARING BENEATH

PLATE VIII

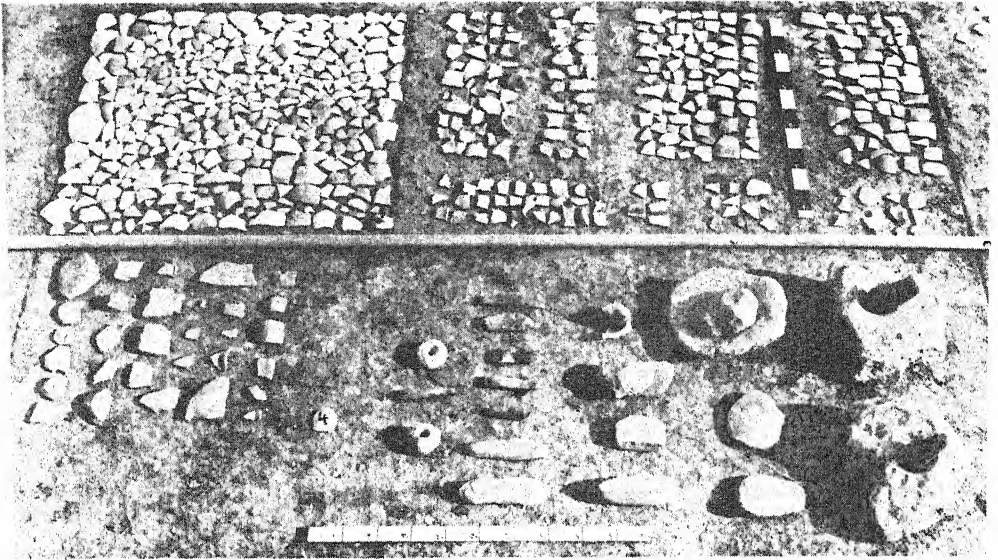


1. LEVEL IV; GENERAL VIEW, WITH LEVEL III WALLS
APPEARING IN THE COURT YARD, CENTER

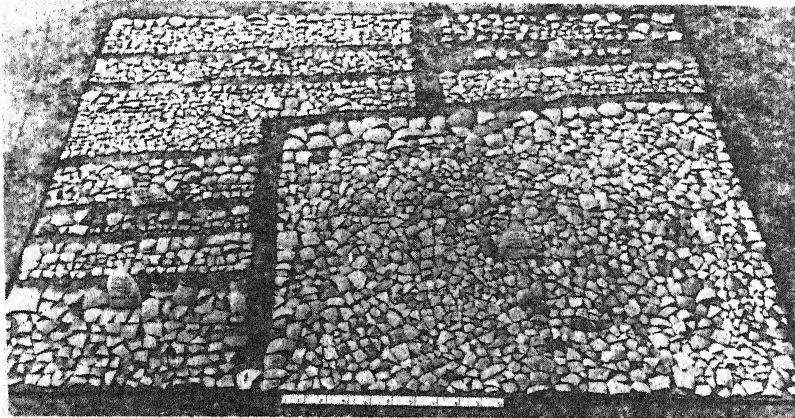


2. LEVEL V; WALLS APPEARING AT END OF 1943 SEASON. REMAINS OF A
KILN (LEVEL VI) IN CENTER (METER STICK ON NEAR WALL)

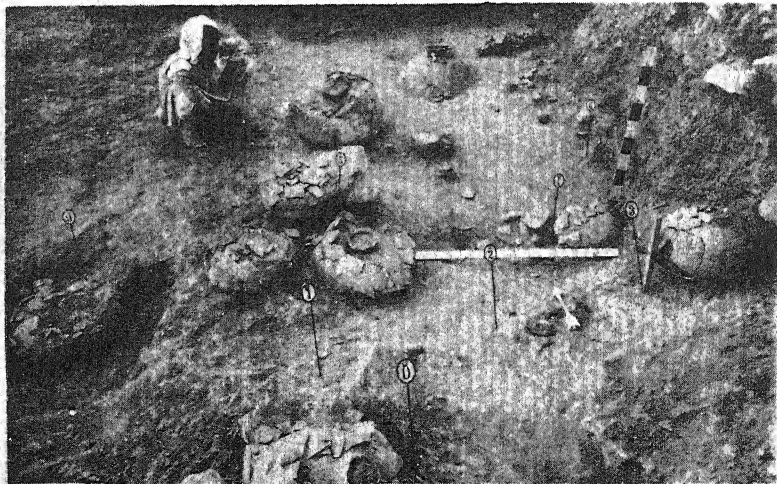
PLATE IX



1. LEVEL Ib ABOVE, LEVEL Ia BELOW. SHERD YARD LAYOUT; BELOW ARE ALSO LARGER STONE ARTIFACTS OF LEVEL Ia

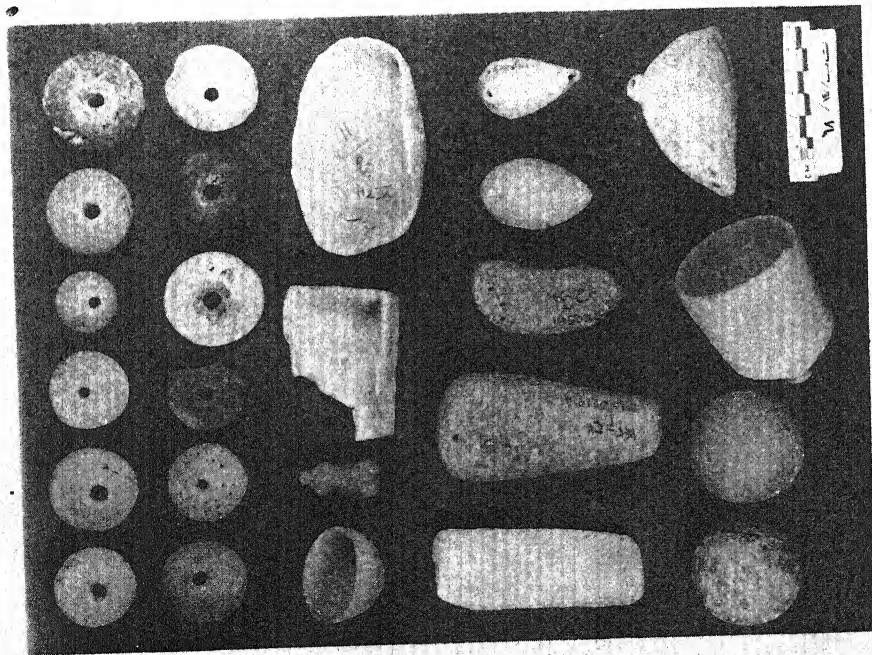


2. LEVEL IV; SHERD YARD LAYOUT

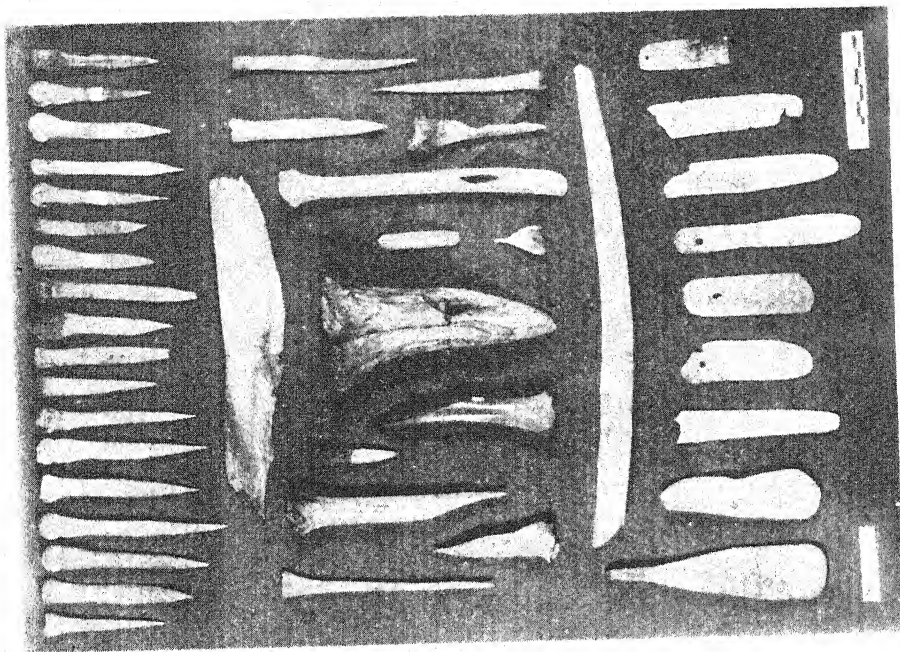


3. LEVEL II, AREA 17; CACHE OF POTTERY, FLINT, AND OTHER ARTIFACTS

PLATE X

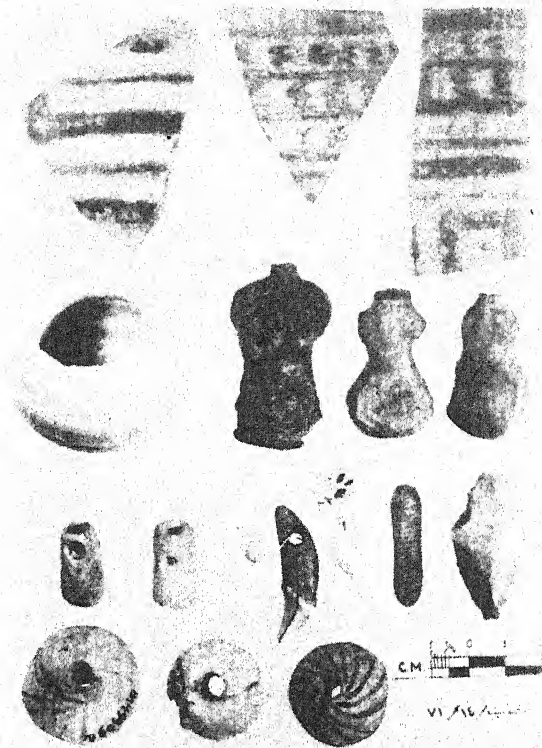


1. LEVELS I_a-V; CLAY AND STONE OBJECTS,
SEASON 1944

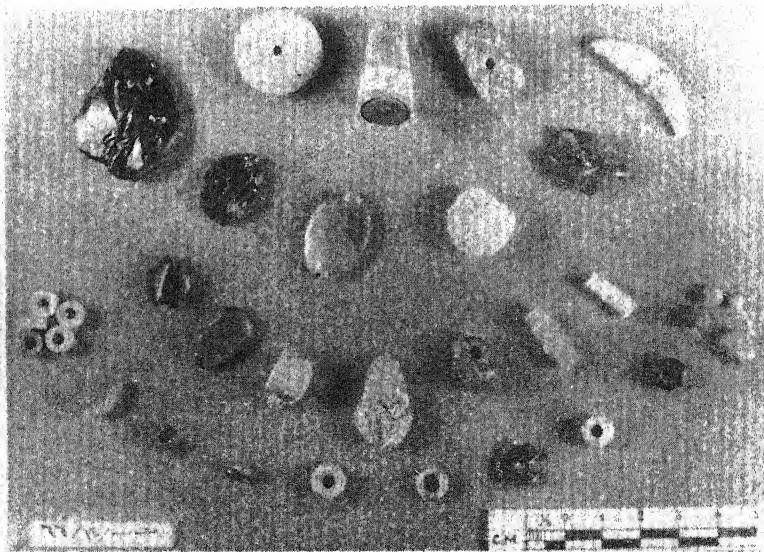


2. LEVELS I_b-VI; BONE OBJECTS

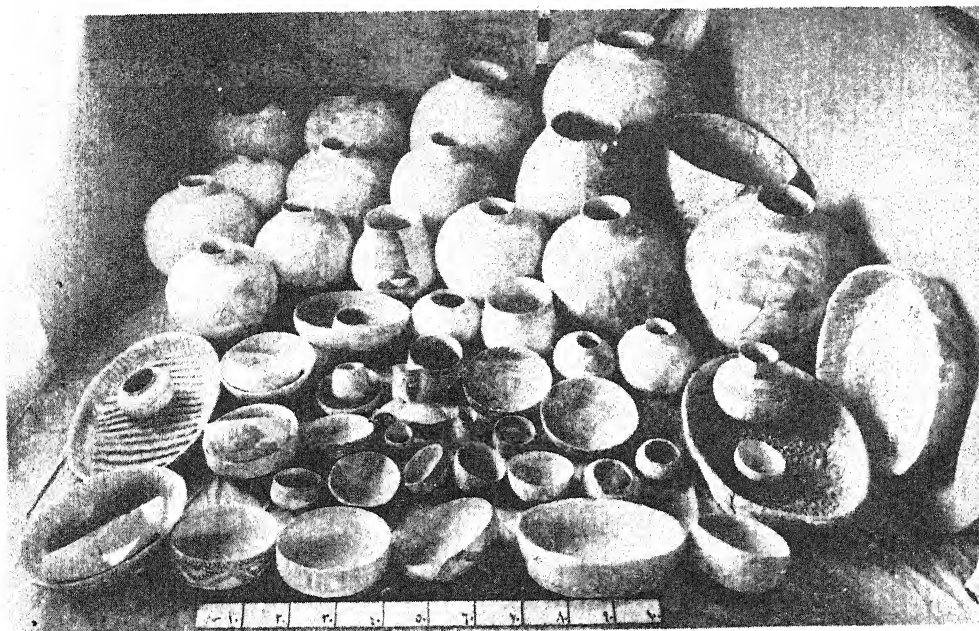
PLATE XI



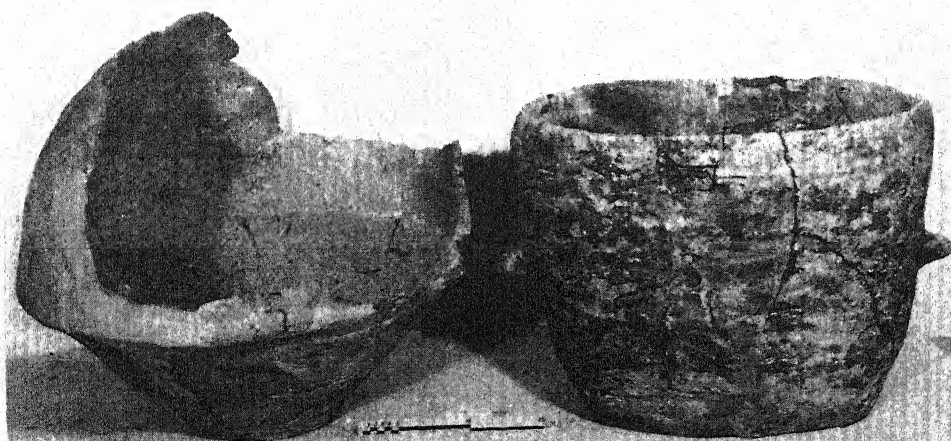
1. LEVELS II-VI; SHERDS AND SMALL OBJECTS,
SEASON 1943



2. LEVELS Ia-V; BEADS AND SMALL OBJECTS, SEASON 1944

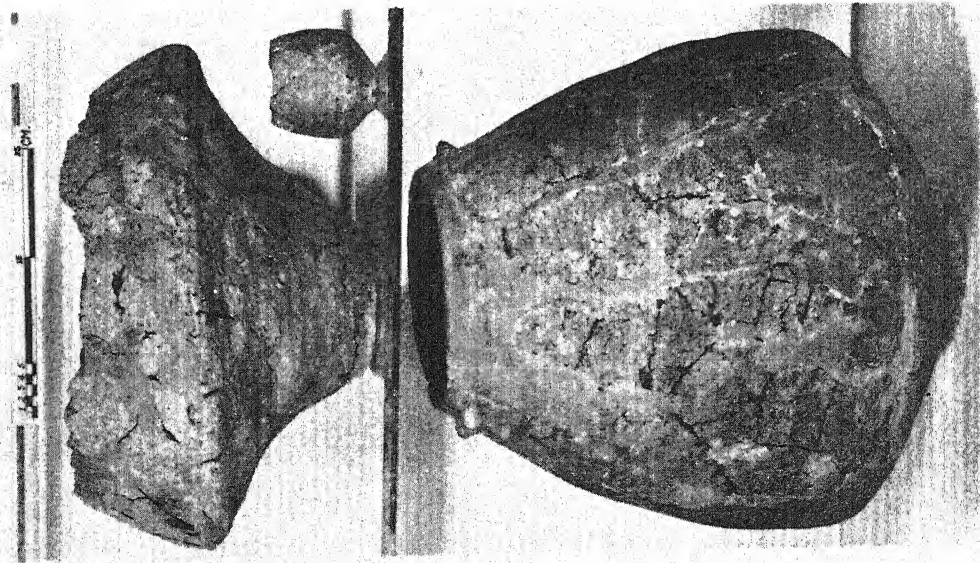


1. A SELECTED GROUP OF POTTERY

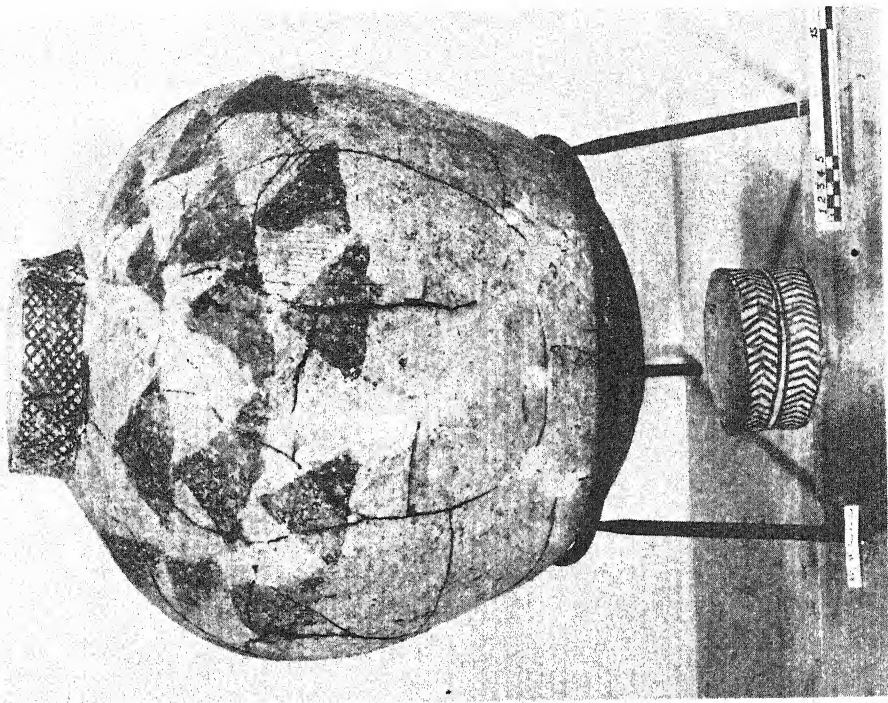


2. LEVEL Ia (*left*), AND LEVEL III; COARSE WARE

PLATE XIII

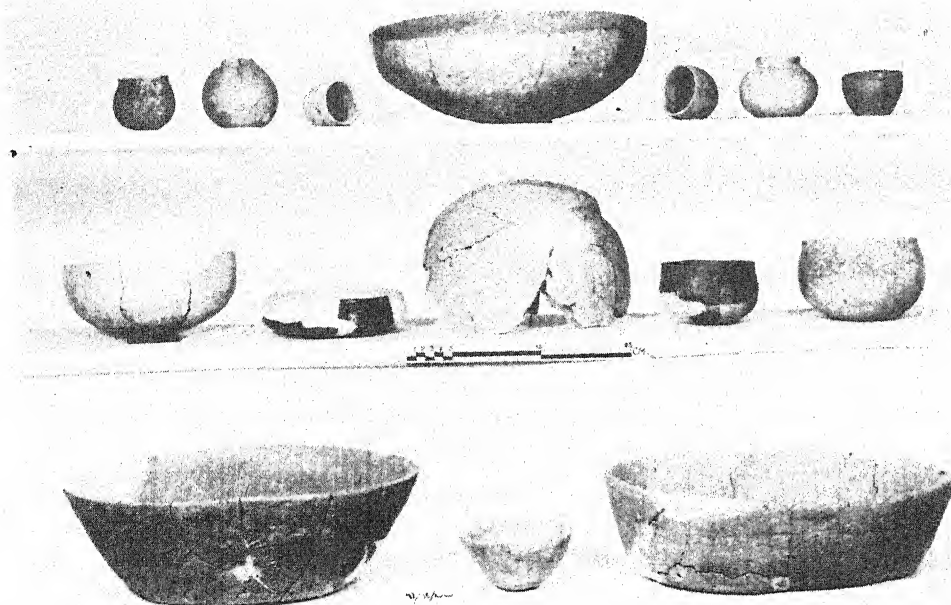


1. LEVEL Ia, FIRST CAMP SITE; COARSE WARE

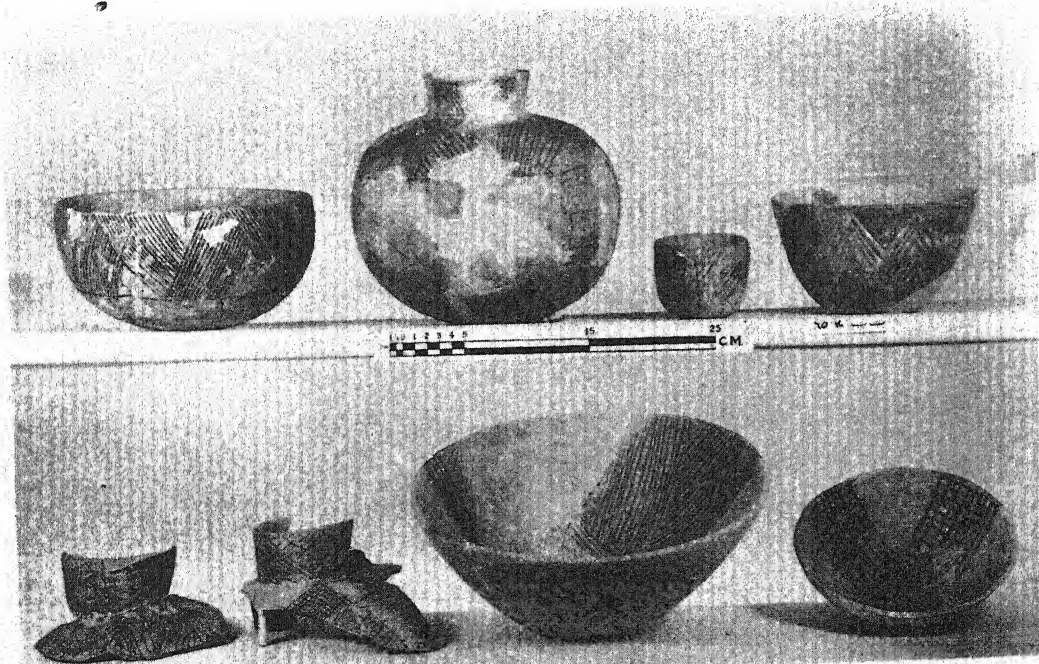


2. LEVEL VI; HASSUNA STANDARD PAINTED-AND-INCISED JAR,
AND AN "IMITATION SAMARRAN" BOWL

PLATE XIV

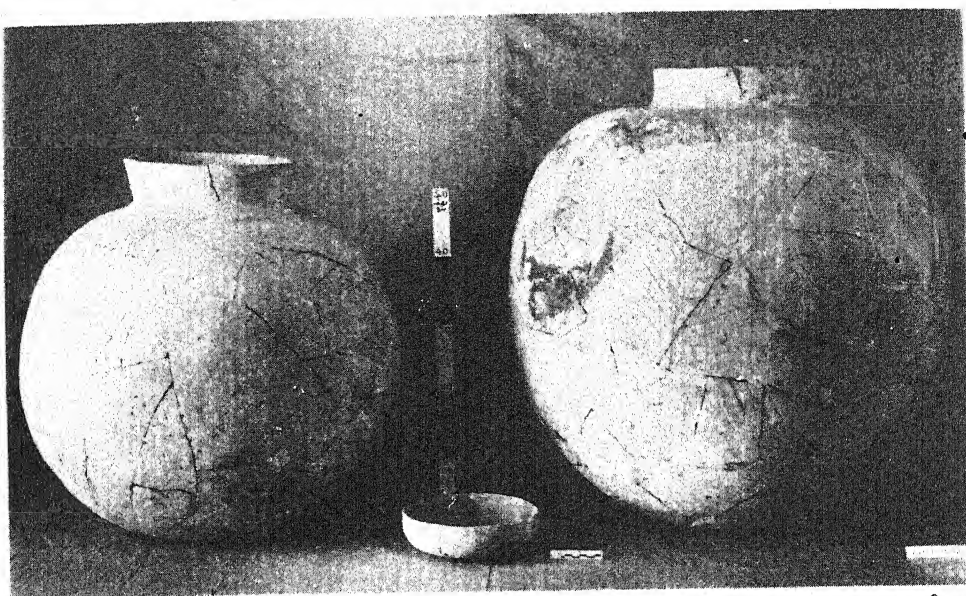


1. LEVELS Ic-V; PLAIN AND BURNISHED VESSELS

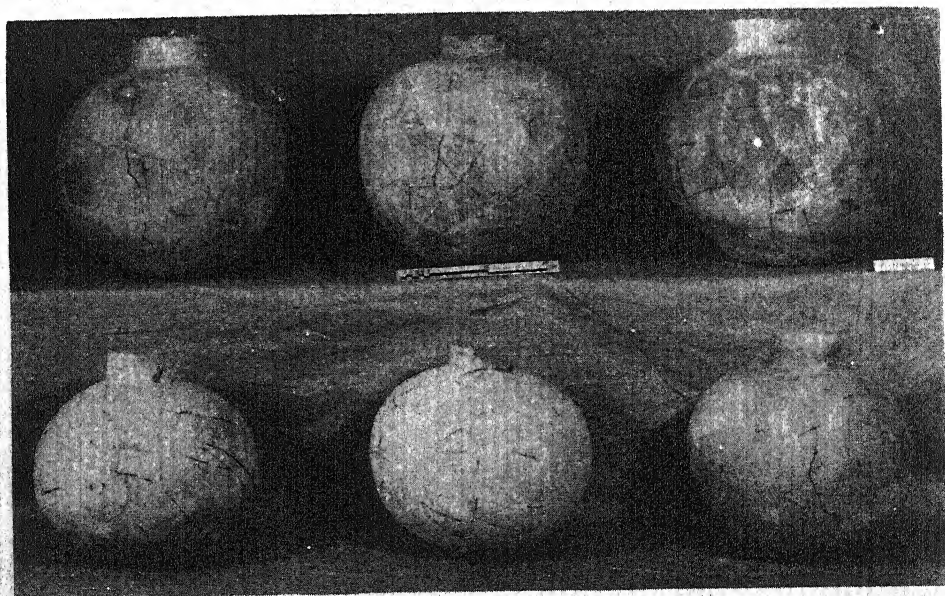


2. LEVELS II AND III (NO. 4 ONLY); HASSUNA ARCHAIC PAINTED WARE

PLATE XV

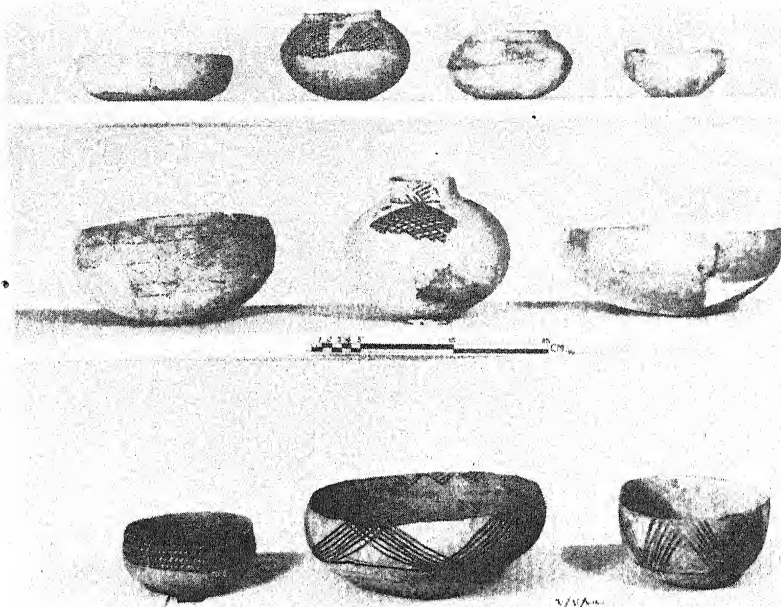


1. LEVEL II (JARS) AND LEVEL V (A BOWL); HASSUNA STANDARD INCISED WARE



2. LEVELS Ic-V; HASSUNA STANDARD INCISED WARE

PLATE XVI



1. LEVELS II-VI; HASSUNA STANDARD INCISED WARE (Nos. 1 and 4), PAINTED WARE (Nos. 2, 3, 5, 7-10), AND PAINTED-AND-INCISED WARE (No. 6)



2. LEVELS III-V; HASSUNA STANDARD PAINTED-AND-INCISED WARE

PLATE XVII



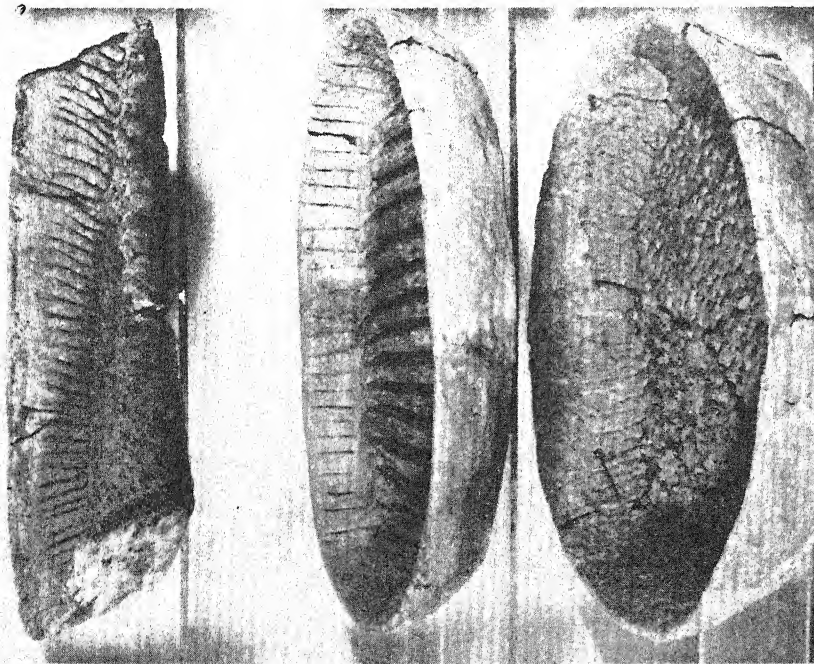
1. LEVELS IV-VI; SAMARRAN PAINTED WARE AND LOCAL IMITATIONS



2. LEVEL V; SAMARRAN PAINTED JAR
FRAGMENT WITH HUMAN FACE
IN RELIEF



3. FROM SAMARRA ITSELF, APPARENTLY FROM
THE SURFACE (IRAQ MUSEUM NO. 50907); A
"BRAZIER" OR PIERCED FOOT FRAGMENT,
OF SAMARRAN WARE

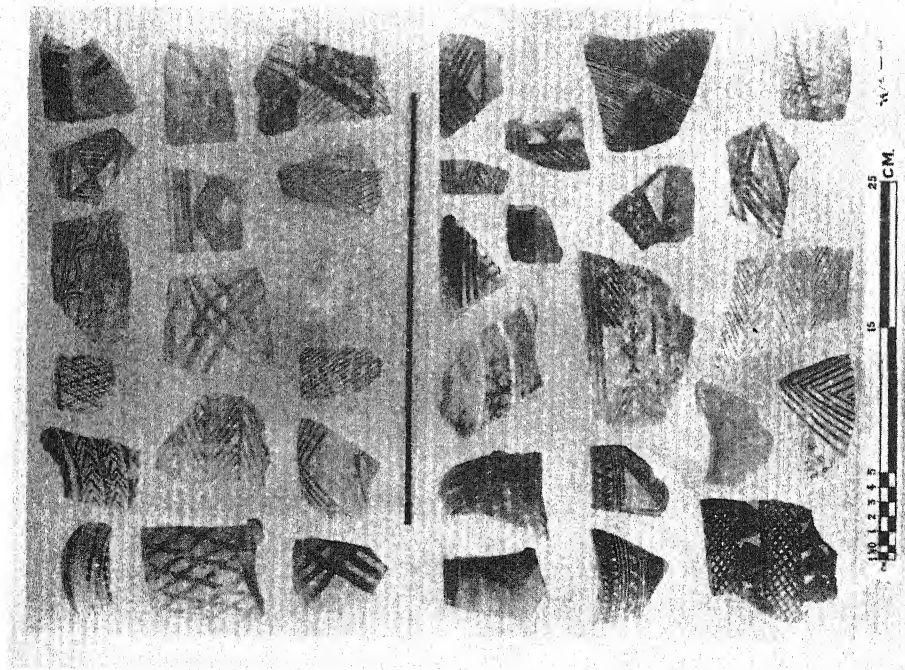


1. LEVELS III, IV, AND V (top to bottom);
"HUSKING TRAYS"



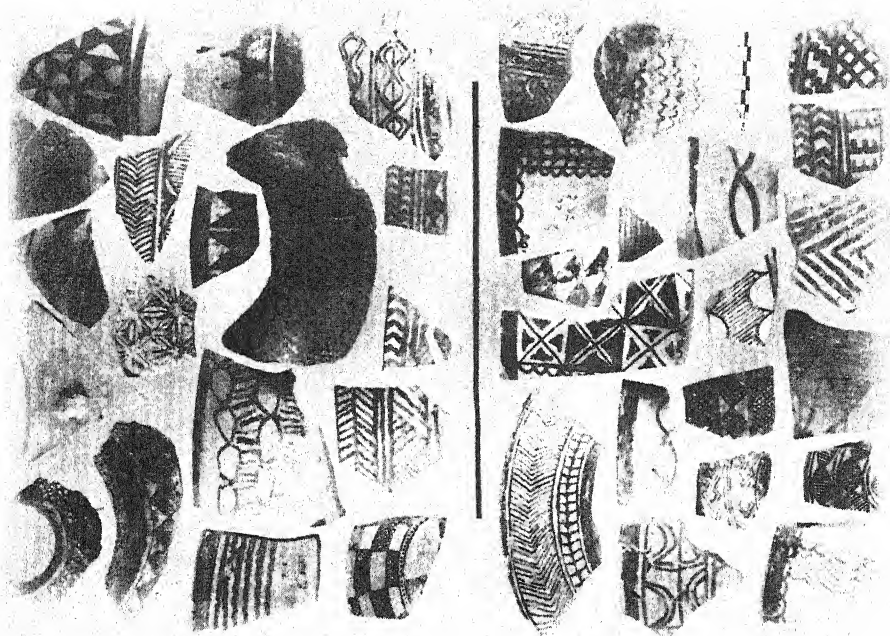
2. LEVEL V; "MOTHER-GODDESS" FIGURINE
IN UNBAKED-CLAY

PLATE XIX



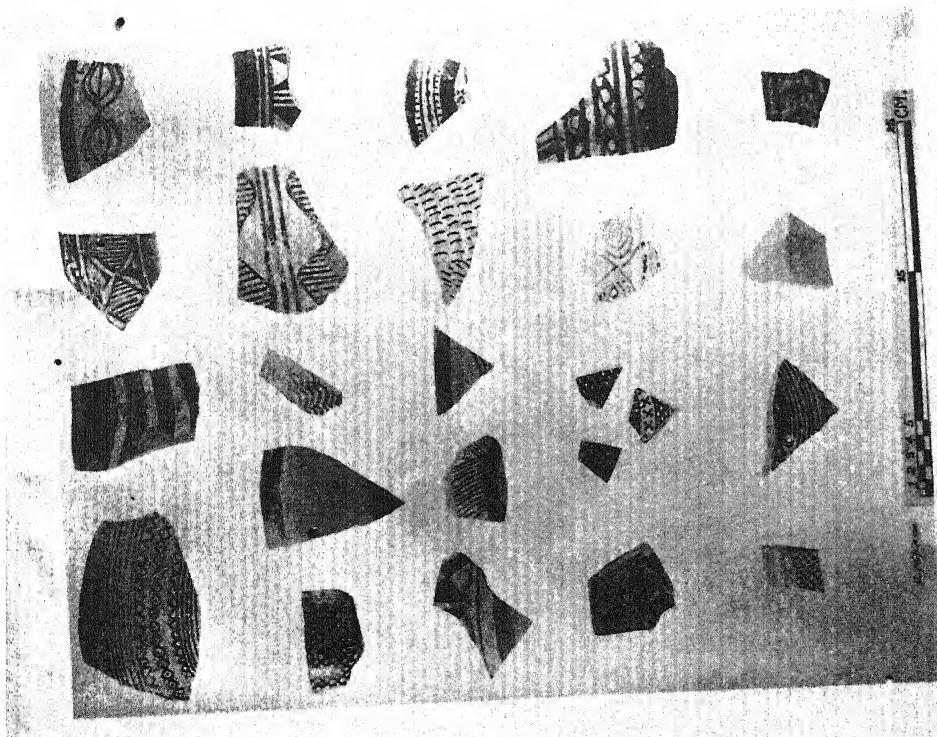
1. Above: LEVEL VI, SOUNDING 2; HASSUNA STANDARD (INCISED, PAINTED, PAINTED-AND-INCISED), SAMARRAN, AND TELL HALAF WARES

Below: LEVEL VII, SOUNDING 2; TYPES MUCH THE SAME AS IN LEVEL VI, ABOVE

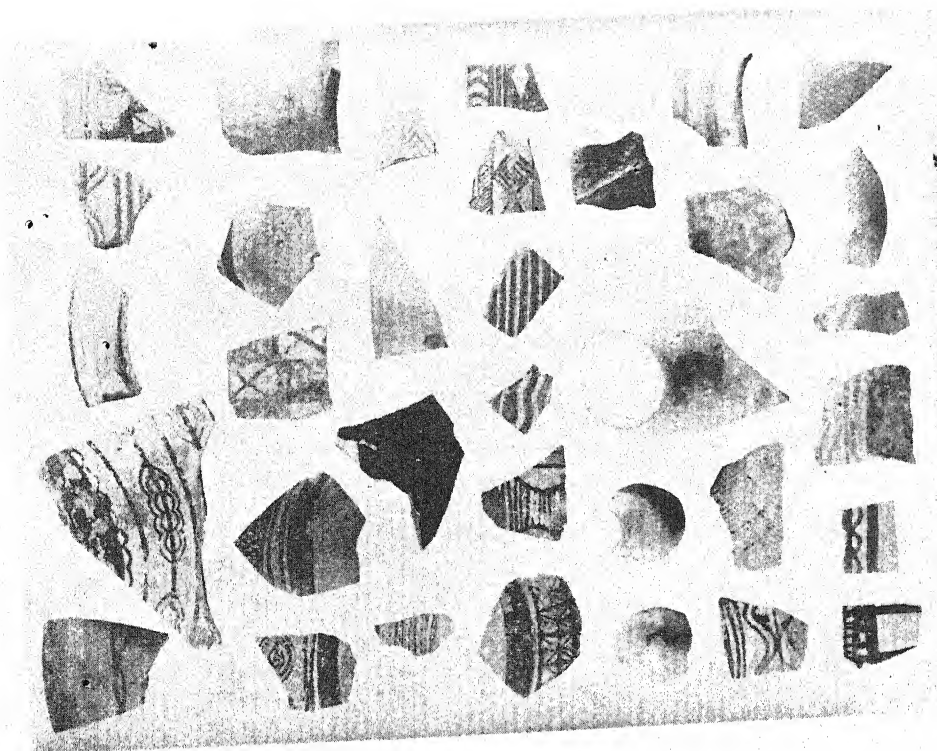


2. Above: LEVEL VIII, SOUNDING 2; ALL TELL HALAF SAVE THREE SAMARRAN IN CENTER, LOWER ROW

Below: LEVEL VII, SOUNDING 2; ALL TELL HALAF SAVE THREE POOR QUALITY SAMARRAN ON RIGHT. LOWER ROW

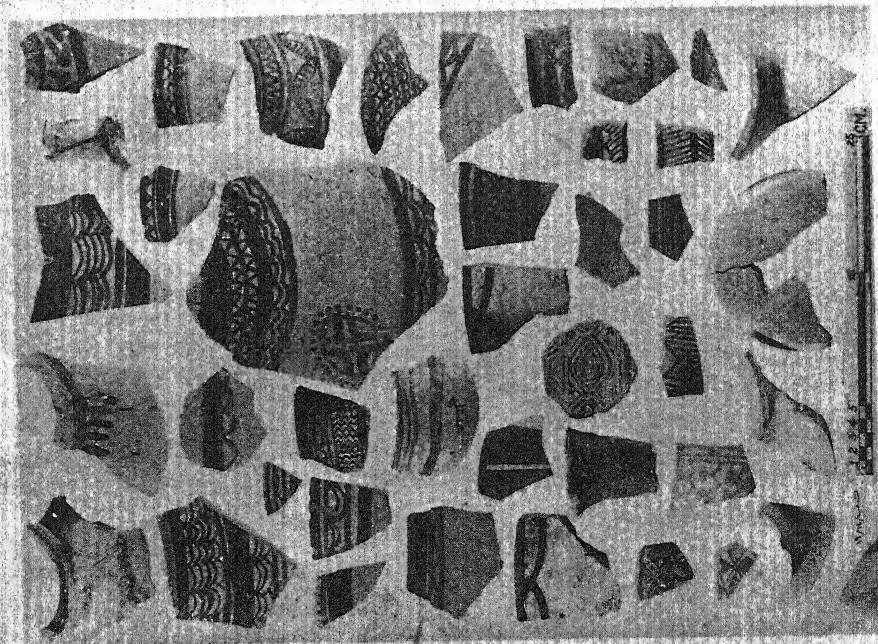


1. LEVEL IX, SOUNDING 2; ALL TELL HALAF WARE

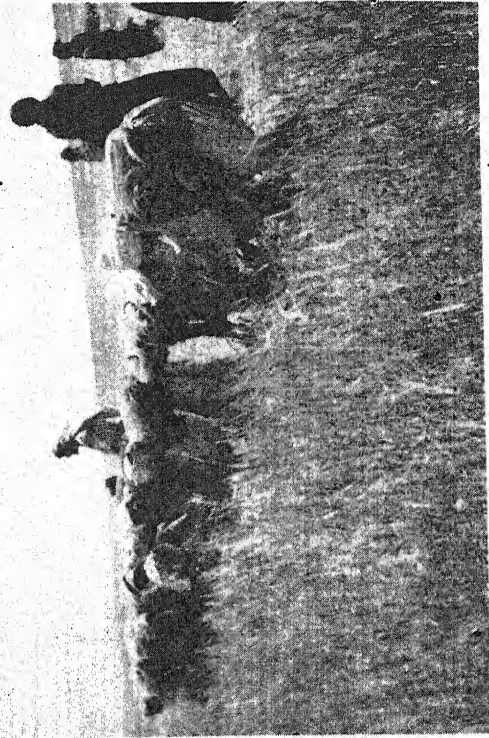
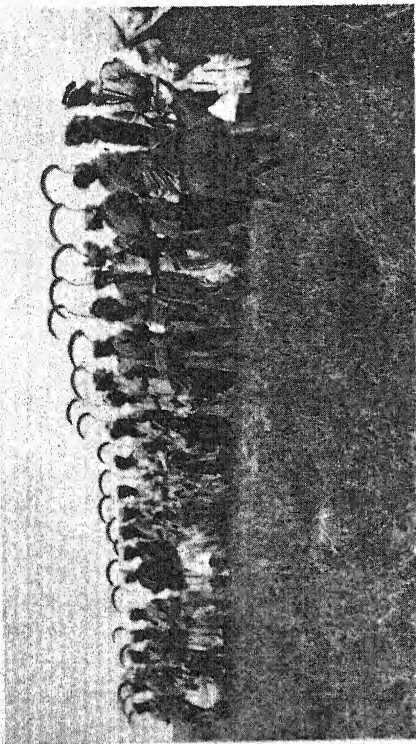


2. LEVELS X AND XI, SOUNDING 2; MOSTLY TELL HALAF WARE; WITH
A SAMARRAN SURVIVOR (*fourth row, right*), AND FIRST AP-
PEARANCE OF AL-UBAID (*bottom row, left*)

PLATE XXI



1. LEVELS XII AND XIII, SOUNDING 2; THE TOP FIVE ROWS ARE
TYPICAL "NORTH IRAQ AL-UBAID" PAINTED WARE, THE
BOTTOM THREE ROWS ARE TELL HALAF WARE.
NOTE FOXLIKE ANIMAL, LEFT CENTER



2. TWO SCENES AS MODERN VILLAGERS BEGIN THEIR HARVEST